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Expectations and satisfaction among undergraduate students : a consumer behavior approach

Leigh. Southward
University of Tennessee

To the Graduate Council:

I am submitting herewith a dissertation written by Leigh. Southward entitled "Expectations and satisfaction among undergraduate students : a consumer behavior approach." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Human Ecology.

Ann Fairhurst, Major Professor

We have read this dissertation and recommend its acceptance:

Nancy Fair, Rosalind Paige, Carol Costello

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

To the Graduate Council:

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Roslind C. Paige

Carol Castello

Accepted for the Council:

Vice Provost and Dean of Graduate Studies

Expectations and Satisfaction Among Undergraduate Students: A Consumer Behavior Approach

A Dissertation

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Doctor of Philosophy
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"For I know the plans I have for you, says the Lord, plans for welfare and not for evil, to give you a future and a hope." Jeremiah 29:11

Abstract

With the increasing popularity of the "students as customers" concept in the delivery of higher education services, colleges and universities must examine their level of customer service. Using the Student Satisfaction Inventory (SSI), this study assessed the differences in expectations, as examined by the importance scores on the SSI, satisfaction levels, and the performance gap scores of undergraduate students who have declared a major (merchandising/clothing and textiles/design), and those who have not declared a major. The difference between the importance (expectations) score and the satisfaction score is known as the performance gap score.

A total of 316 students from four universities in a southern state completed the SSI. Results indicated that there were significant differences in the means of the respondents' performance gap scores on the four selected scales of the SSI (i.e. academic advising, campus climate, instructional effectiveness, and recruitment and financial aid) for major, employment status, and institutional choice. However, the analysis of variance tests revealed that the variables major and employment status were only significant when interacting with another factor. There were significant interactions between the major and method of payment variables, and the employment status and the method of payment variables. Implications for higher education are discussed.

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CHAPTER 1

INTRODUCTION

Over the past decades the educational climate has evolved into one of economic challenge. There is increased competition among colleges and universities for better faculty, higher enrollment, and a better product (Willis and Taylor, 1999; Rhoades, 1992). Students have more choices about where to attend college, and recruiting and retaining students is now a matter of economic survival (Juillerat, 1995). Also, there is more demand for accountability for colleges and universities from legislators, parents, and the general public (Hartman and Schmidt, 1995) and especially from potential employers of graduates (Willis and Taylor, 1999).

Lowe (2000) identifies three basic attributes of successful institutions. They focus on the needs of their students, continually work to improve the quality of the students' educational experience, and use the data from student satisfaction research for future planning. The concept of student satisfaction is becoming increasingly important among institutions of higher learning. The customer service approach towards students that colleges and universities are using today focuses on meeting the needs and expectations of students and fostering overall satisfaction (Kotler and Fox, 1995; Astin, 1993; Spanbauer, 1992; Orpen, 1990).

The concept of students as customers or consumers of services of higher education has existed for over a decade and is becoming increasingly popular

(Delmonico, 2000; Swenson, 1998; Krehbiel, McClure, and Pratsini, 1997; Rowley, Lujan, and Dolence, 1997; Sanders and Burton, 1996; Franklin and Shemwell, 1995; Kotler and Fox, 1995; Sines and Duckworth, 1994; Short, 1997; Spanbauer, 1992). The student does not completely fit the consumer role because consumers are not evaluated in terms of pass/fail as students are, and consumers do not need to reach any performance standard except to pay for the service. However, the nature of the consumer as one who exchanges money for a product or service, and whose satisfaction, or dissatisfaction, can greatly impact the success of an organization is a very applicable concept to institutions of higher education (Juillerat, 1995).

There is a reciprocal relationship between students and colleges and universities that is not present in the marketplace, in that a university's reputation depends somewhat on the quality of its students. Whereas students have a certain responsibility to contribute to the university's good reputation by performing well, the business and industry customers' performance has no impact on the organization's reputation (Juillerat, 1995).

Product and service marketers know that in order to keep customers, they must offer high quality service (Dabholkar, Shepherd, and Thorpe, 2000). Business and industry organizations want to keep their customers satisfied and use various customer service strategies; therefore, colleges and universities need to use a customer service approach to assess the quality of their service to

students (Kotler and Fox, 1995; Hillman, 1993; Spanbauer, 1992; Chaffee, 1990).

The external environment of colleges and universities has created a consumer-oriented approach to student assessment where the emphasis is on the customer (student) and not the organization (Franklin and Shemwell, 1995; Sanders and Burton, 1996). Young and Johnson (1997) indicated that educators should be asking themselves if they are asking their customers' opinions about the services they are providing and if their expectations of these services are being met or exceeded.

Also included in the trend toward viewing students as customers, is the concept of total quality management (TQM) as colleges and universities work toward improving the quality of their organizations. The number of colleges and universities employing TQM principles has increased from 78 in 1991 to over 200 in 1996 and continues to increase (Willis and Taylor, 1999). Hillman (1993) states that incorporating TQM principles in higher education requires that institutions of higher learning must develop a keen awareness of their customers' needs and make improvements that meet and exceed these expectations. Spanbauer (1992) indicated that the goal of TQM in higher education is a commitment to delivering high quality programs and services that consistently meet or exceed the customer expectations.

It is important to distinguish customers of services from customers of products. Just as banks do not allow customers to set interest rates, and hospitals

do not consult patients regarding medical procedures, colleges and universities recognizing students as customers will not give them authority to choose curriculum topics or assign their own grades (Swenson, 1998).

Swenson (1998) identifies five ways that colleges and universities can recognize students and their potential employers as customers without allowing either group to dictate the specific details of an education as a product: 1) focus on student learning instead of teaching, 2) teach more than the course content, and insure that students have the skills to write clearly, articulate ideas, work as a team member, and think critically, 3) involve students in setting the goals and objectives for their classes, 4) make administrative and support services available and accessible to students when it is convenient for them, and 5) be responsive to the corporate culture. Contrary to the belief of most academicians, business professionals do not want narrowly educated employees. Today's corporate culture is one in which business and industry professionals appreciate the value of employees who know about more than just their jobs.

With the increasing popularity of the "students as customers" concept in the delivery of higher education services, colleges and universities must examine their level of customer service. Higher education institutions must determine if their customers are satisfied and if their needs are being meet. This study examined undergraduate college students in four universities in the Tennessee Board of Regents System, in order to determine the expectations and levels of satisfaction with services provided by their respective institutions of higher

learning. The importance score on the Student Satisfaction Inventory (SSI) indicates the students' expectations. The respondents' satisfaction levels are measured by their performance gap scores, which are defined as the difference between their importance (expectation) score and their satisfaction score on the SSI. A statement of the problem, purpose of the study, definitions, assumptions, and the hypotheses for the study are presented in this chapter.

Statement of the Problem

More than half of the nation's fifty states' colleges and universities receive state funding that is based on graduation rates and student satisfaction (Cornwell, 1998). Colleges and universities are now being held to a new standard of accountability. Governmental authorities and constituencies are pressuring institutions of higher education to become more efficient and productive with resources generated by the public (Alexander, 2000). This is particularly true among colleges and universities in the Tennessee Board of Regents System since institutions are being called upon to continue to provide high quality programs with limited resources (Defining Our Future, 2001).

The traditional relationship between institutions of higher education and the government is significantly changing as colleges and universities are called on to stretch the public dollar while serving more students and maximizing economic returns. Colleges and universities in many states, including Tennessee, receive performance based funding. Increasingly, this funding will be linked to three performance indicators: college graduation rates, graduate

employment rates, and alumni, employer and student satisfaction (Alexander, 2000). Traditional consumer principles from industry are now major factors in the marketing directions of higher education services (Kotler and Fox, 1995).

Students started expressing dissatisfaction with higher education in the late 1960's and early 1970's and many studies were conducted to try to determine the characteristics that would create more satisfied students and would allow colleges and universities to retain them (Netusil and Hallenbeck, 1975; Betz, Starr, and Menne, 1972; Schmidt and Sedlacek, 1972; Starr, Betz, and Menne, 1972; and Betz, Klingensmith, and Menne, 1970). However, these studies held the assumption that student satisfaction was a known set of components; therefore, the studies did not seek to determine what characteristics caused students to be satisfied (Noel, Levitz, Saluri, and Associates, 1985).

Astin (1993) reported that while three out of four college students rated their educational experiences as "satisfactory" or "very satisfactory", it is the one student out of four that expressed dissatisfaction with their college experience that we need to be concerned about. Astin also found that the level of student satisfaction with college was based more on their experiences after they started college than personal characteristics of the student when entering college.

Currently, with a declining economy, it is even more important that colleges and universities focus on marketing their programs and services, and recognize that they serve a variety of customers (students). Spanbauer (1992) identifies two types of higher education customers: internal customers that are

part of the school structure such as, faculty, staff, and administrators, and external customers such as, currently enrolled and potential students, parents, elected officials, taxpayers, and potential employers of graduates.

This study assessed the differences in expectations, as examined by the importance scores on the SSI, satisfaction levels, and the performance gap scores of undergraduate students attending a university in the Tennessee Board of Regents System who have declared a major (merchandising/clothing and textiles/design), and those who have not declared a major. The difference in the importance (expectations) score and the satisfaction score on the SSI is known as the performance gap score. The performance gap scores of students based on employment status (employed or not employed), choice of institution (first, second, or third), and payment of educational expenses (self, parents, employer, grant, loan or scholarship) were also examined. The instrument used was the Student Satisfaction Inventory (SSI) (See Appendix A). The SSI measures twelve scales: 1) academic advising effectiveness, 2) campus life, 3) campus support services, 4) campus climate, 5) concern for the individual, 6) instructional effectiveness, 7) recruitment and financial aid, 8) registration effectiveness, 9) responsiveness to diverse populations, 10), safety and security, 11) service excellence, and 12) student centeredness (Noel-Levitz, 1997).

Performance gap scores were calculated for eleven of the twelve scales. The twelfth scale, "Responsiveness to Diverse Populations" only measures level of satisfaction. The importance dimension was not measured due to the

sensitivity of the questions and the implications of asking the majority of the population about issues that only affect a minority of the population (Juillerat, 1995). For this study, the performance gap scores for the following four scales were examined: 1) advising effectiveness, 2) campus climate, 3) instructional effectiveness, and 4) recruitment and financial aid.

Definitions

The following terms are defined in relation to their use in this study. If there is no citation, the term was developed by the researcher for the purpose of this study.

Declared Major: the term used by a particular college or university studied to identify students majoring in a merchandising, clothing and textiles or design program area.

Expectancy Disconfirmation: "... the psychological interpretation of an expectation-performance discrepancy (Oliver, 1997 p.28).

Expectation: According to the Merriam-Webster dictionary, " the state of considering something reasonable, due, or necessary" (cited in Juillerat, 1995).

Importance Score: the score on the SSI that represents how important it is to a student that an expectation be met in order for him/her to be satisfied (Juillerat, 1995).

Performance Gap Score: the difference between the importance score and the satisfaction score on the Student Satisfaction Inventory (Juillerat, 1995). If a performance gap score was above zero, this indicated unmet expectations. If a

performance gap score was below zero, the students' level of satisfaction exceeded their level of expectations.

Satisfaction: "a judgement that a product or service feature, or the product itself, provided (or is providing) a pleasurable level of consumption-related fulfillment..." (Oliver, 1997, p.13)

Satisfaction Score: represents how satisfied a student is that his/her expectations are presently being met. The construct of student satisfaction can be operationalized to mean the positive or negative gap between a student's expectation level and their perceived reality (Juillerat, 1995).

Student Satisfaction: occurs when a student indicates that his/her need or want has been met (Juillerat, 1995).

Student Satisfaction Inventory (SSI): an instrument developed by Schreiner and Juillerat (1993) for use by Noel-Levitz Centers, Inc, to measure student expectations and levels of satisfaction and the gap between the two on various scales.

Undeclared Major: term used to identify undergraduate students who have not declared a major.

Assumptions

1. It was assumed that the twelve scales of the SSI were an accurate representation of characteristics significant for student expectations and satisfaction.

2. It was assumed that the SSI was a reliable and valid instrument for researching the hypotheses of this study.
3. It was assumed that the undergraduate student respondents would provide honest answers on the Student Satisfaction Inventory.

Purpose of the Study

The purpose of this study was to assess the differences in expectations, as examined by the importance score on the SSI, satisfaction levels, and the performance gap scores of undergraduate students who have declared a major (merchandising/clothing and textiles/design), and those who have not declared a major. The study examined the performance gap scores of four of the twelve scales of the SSI: 1) advising effectiveness, 2) campus climate, 3) instructional effectiveness, and 4) recruitment and financial aid. The four selected dimensions and the additional dimensions of the Students Satisfaction Inventory are explained in detail in Chapter 3. The relationships among the performance gap scores of the four selected scales of the SSI and students' employment status (employed or not employed), choice of institution (first, second, or third), and payment of educational expenses (self, parents, or financial aid) were also studied.

The study examined four scales selected from the twelve scales measured by the Student Satisfaction Inventory (SSI). The performance gap scores from the respondents were used to identify areas among the institutions studied that need to be evaluated in order to decrease the performance gap scores. The results

of this study will enable colleges and universities to use limited resources more carefully. In addition, colleges and universities can re-evaluate short and long-term goals based on student expectations and satisfaction and use this information in planning ways to increase student retention, which is a major concern for colleges and universities today (National Center for Education Statistics, 1997).

Student Retention

It costs much less in time, effort, and money to retain students than to recruit them. Colleges and universities often measure the cost of recruiting students in terms of thousands of dollars; however, the savings resulting from retaining a full-time student can be stated in terms of tens of thousands of dollars (Bean, 1990). The number of people enrolling in colleges and institutions continues to increase, but the number of people leaving without completing a degree is also increasing. Many students leave college without earning twenty credits, and almost one third of college freshman will not return for their sophomore year (Feemster, 1999).

Noel, Levitz, Saluri, and Associates (1985) discovered several years ago that colleges and universities that were successful recognized the link between student satisfaction and retention. Walter (2000) surveyed undergraduate students using the SSI and found that student satisfaction had a positive impact on student persistence. Results from a recent study on student retention indicated that students continue to "comparative shop" after enrolling in a college or

university, and disconfirmation of their choice plays a large part in their decision to remain at the institution or leave (Rummel, Acton, Costello, and Pielow, 1999).

Tinto (1987) indicated that there was no single cause for students leaving college without completing a degree and developed an explanatory model for student retention/attrition: Theory of Student Departure. The researcher posited that a student's integration into the institutions' academic and social systems is a major determinant of student retention/attrition, as well as, faculty-student interaction. How well a student felt "welcomed" and that they "belonged" were major indicators of student persistence. The results of this study will indicate areas where students are more easily integrated into both academic and social systems of the institution.

Liu and Liu (1999) applied Tinto's model in their study of undergraduate students who held drop out status and completion status. The researchers found that the student-faculty relationship was critical to student retention. This relationship did not consist just of classroom interaction, but advising, and informal discussions during office hours. Academic advising and availability of faculty outside the classroom are both issues examined by the SSI. The results of this study can be used by faculty, administrators, and support personnel to address areas of the institution's academic and social systems that may need attention, in order to increase student satisfaction and student retention.

Meeting the expectations of students is a key factor in the customer service approach to student satisfaction. The results of this study will also provide administrators, faculty, and support personnel with information to understand the expectations of undergraduate students and enhance colleges and universities' programs and services to better meet these expectations. Thus, increasing overall student satisfaction and student retention.

Hypotheses

The purpose of this study was to assess the differences in expectations, as examined by the importance score on the SSI, satisfaction levels, and the performance gap scores of undergraduate students attending a university in the Tennessee Board of Regents System who have declared a major (merchandising/clothing and textiles/design), and those who have not declared a major. The difference between the importance (expectations) score and the satisfaction score is known as the performance gap score. The performance gap scores on the SSI were the dependent variables for this study. The major hypothesis for this study addressed the differences in the respondents' performance gap scores for the four selected scales of the SSI (i.e. academic advising, campus climate, instructional effectiveness, and recruitment and financial aid) and the four independent variables including major (declared or undeclared), employment status (employed or not employed), institutional choice (first, second or third), and method of payment for educational expenses (self, parents, employer, grant, loan or scholarship).

H_0: There will be no significant differences in the performance gap scores on the academic advising, campus climate, instructional effectiveness, and recruitment and financial aid dimensions of the Student Satisfaction Inventory among undergraduate students based on major, employment status, method of payment for educational expenses, and institutional choice

Each sub-hypothesis addresses the performance gap scores of the dependent variables (i.e. academic advising, campus climate, instructional effectiveness, and recruitment and financial aid) and each of the four independent variables (i.e. major, employment status, method of payment of educational expenses, and institutional choice).

H_{1A}: There will be no significant difference in the performance gap scores on the academic advising dimension of the SSI for undergraduate students who have declared a major and those who have not declared a major.

H_{1B}: There will be no significant difference in the performance gap scores on the campus climate dimension of the SSI for undergraduate students who have declared a major and those who have not declared a major.

H_{1C}: There will be no significant difference in the performance gap scores on the instructional effectiveness dimension of the SSI for undergraduate students who have declared a major and those who have not declared a major.

H_{1D}: There will be no significant difference in the performance gap scores on the recruitment and financial aid dimension of the SSI for undergraduate students who have declared a major and those who have not declared a major.

H_{2A}: There will be no significant difference in the performance gap scores on the academic advising dimension of the SSI for undergraduate students who are employed and those who are not employed.

H_{2B}: There will be no significant difference in the performance gap scores on the campus climate dimension of the SSI for undergraduate students who are employed and those who are not employed.

H_{2C}: There will be no significant difference in the performance gap scores on the instructional effectiveness dimension of the SSI for undergraduate students who are employed and those who are not employed.

H_{2D}: There will be no significant difference in the performance gap scores on the recruitment and financial aid dimension of the SSI for undergraduate students who are employed and those who are not employed.

H_{3A}: There will be no significant difference in the performance gap scores on the academic advising dimension of the SSI for undergraduate students who are receiving federal grants or scholarships and those whose education is being financed by themselves, their parents, or their employer.

H_{3B}: There will be no significant difference in the performance gap scores on the campus climate dimension of the SSI for undergraduate students who are receiving federal grants or scholarships and those whose education is being financed by themselves, their parents, or their employer.

H_{3C}: There will be no significant difference in the performance gap scores on the instructional effectiveness dimension of the SSI for undergraduate students who are receiving federal grants or scholarships and those whose education is being financed by themselves, their parents, or their employer.

H_{3D}: There will be no significant difference in the performance gap scores on the recruitment and financial aid dimension of the SSI for undergraduate students who are receiving federal grants or scholarships and those whose education is being financed by themselves, their parents, or their employer.

H_{4A}: There will be no significant difference in the performance gap scores on the academic advising dimension of the SSI for undergraduate students based on whether they are attending the institution that was their first, second, or third choice.

H_{4B}: There will be no significant difference in the performance gap scores on the campus climate dimension of the SSI for undergraduate students based on whether they are attending the institution that was their first, second, or third choice.

H_{4C}: There will be no significant difference in the performance gap scores on the instructional effectiveness dimension of the SSI for undergraduate students based on whether they are attending the institution that was their first, second, or third choice.

H_{4D}: There will be no significant difference in the performance gap scores on the recruitment and financial aid dimension of the SSI for undergraduate students based on whether they are attending the institution that was their first, second, or third choice.

CHAPTER 2

REVIEW OF LITERATURE

This chapter provides a review of literature related to consumer behavior theory, customer expectations, and customer satisfaction and particularly the expectations and satisfaction of undergraduate college students. Research on student expectations and satisfaction based on academic advising, campus climate, instructional effectiveness, and recruitment and financial aid are also examined, as well as current literature addressing college major, student employment, institutional choice, and method of payment for educational expenses.

Theoretical Framework

Various theories and models of student satisfaction in higher education have developed over the past several years (Netusil and Hallenbeck, 1975; Betz, Starr, and Menne, 1972; Schmidt and Sedlacek, 1972; Starr, Betz, and Menne, 1972; and Betz, Klingensmith, and Menne, 1970). Student satisfaction assessment by researchers and administrators of higher education institutions has evolved from a reactive approach to a proactive approach focusing on student retention and preventing student dissatisfaction. College and university administrators realized that institutional success was greatly impacted by attracting and retaining students, and satisfying their expectations (Juillerat, 1995).

Expectations Disconfirmation Theory

The role of expectancy disconfirmation has a major impact on consumer satisfaction decisions. Researchers now include the positive or negative disconfirmation of expectations as part of expectancy theory when studying satisfaction (Orpen 1990; Oliver, 1997). Based on the earlier work of Engel, Kollat, and Blackwell (1968), Oliver (1980) posited that satisfaction increased as the performance/expectation ratio increased. Researchers from the fields of social and applied psychology have long indicated that satisfaction is a function of a preconceived standard and some discrepancy from this initial standard.

While Miller (1976) defined satisfaction as disconfirmation, Oliver (1981) believed disconfirmation was an antecedent to satisfaction. Oliver (1980) hypothesized that customer satisfaction was primarily focused on the disconfirmation of customer expectations, and that satisfaction resulted when consumers compared product or service performance with their expectations. If the perceived performance of a product or service exceeded customer expectations, then the result was a positive disconfirmation and a satisfied customer. However, if the perceived performance of a product or service did not meet the customer's expectations, then the result was a negative disconfirmation and an unsatisfied customer. Finally, if product performance only meets the customer's expectations, then you have zero disconfirmation, or simply confirmation (Oliver, 1997). Figure 1 illustrates the model as used in this study.

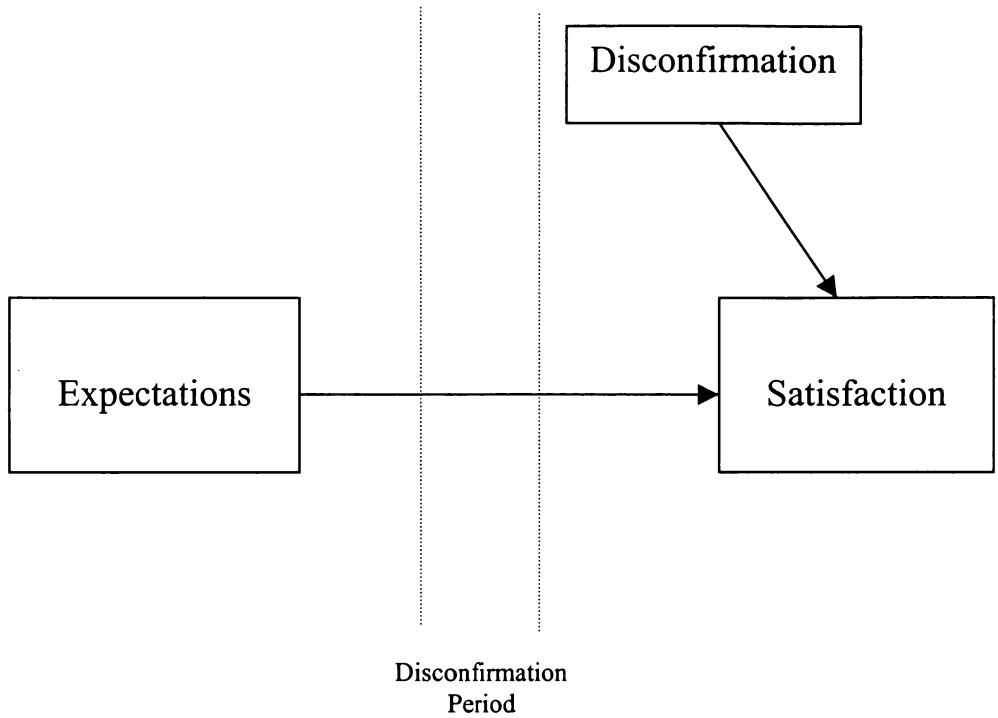

Figure 1: Expectations/Disconfirmation Theoretical Framework (personal communication, RCS 641 course, Dr. Ann Fairhurst, University of Tennessee, Knoxville).

Oliver (1981) elaborates on the three aforementioned categories of disconfirmation. Positive disconfirmation results when there is a low expectation that something desirable will happen or a high expectation that something undesirable will not happen. Negative disconfirmation results when there is a low expectation that something undesirable will happen or a high expectation that something desirable will happen. Simple confirmation occurs when there are high or low expectations that desirable or undesirable events happen or do not happen as expected.

Oliver (1993) offered a similar position when stating that disconfirmation of ideals is an antecedent for customers' perceptions of quality, and the disconfirmation of expectations are antecedents of customer satisfaction. In other words, a customer might be satisfied with poor performance, if in fact, the performance is better than they initially expected.

Orpen (1990) used the disconfirmation theory to study business students' satisfaction levels and found that those students whose expectations were positively disconfirmed were more satisfied than those whose expectations were negatively disconfirmed. These results confirmed the need to measure student satisfaction by assessing their expectations and their levels of satisfaction (Juillerat, 1995; Lembecke, 1994).

Kotler and Fox (1995) indicated that customers (students) could experience satisfaction with student services on three levels: dissatisfaction, satisfaction, and high satisfaction. The authors pointed out that expectations

were formed based on a student's perceptions or prior experiences, which in turn help determine their behavior.

If an institution's performance is less than what the customers (students) expect, they are dissatisfied. Students may drop out, transfer to another institution, or remain at the institution but speak negatively about the institution and their educational experiences. If an institution's performance meets the customer's expectations, the student is satisfied and will most likely remain at the institution and complete their degree. However, it must be noted that customers who are "just satisfied" often find it easy to change if they learn of a better offer. If the institution's performance exceeds the customer's expectations, the person is highly satisfied, will most likely remain at the institution, speak well of their educational experience, and may become a donor and an advocate for the institution. Colleges and universities needed to plan and implement quality programs and services consistently and communicate this to their students in order to assess student satisfaction adequately (Kotler and Fox, 1995).

Customer Expectations

Oliver's (1980) model is based on the notion that expectations create a reference point about which a person uses to make a comparative judgment. Performance that falls below an expectation is negative disconfirmation and performance that exceeds an expectation is positive disconfirmation.

Oliver (1981) assessed that expectations have two components: a probability of occurrence (predictive expectations) and an evaluation of the

occurrence (evaluative expectations). However, the predictive expectation and the evaluative expectation may not be the same. Using the example of a sales clerk in a retail store: customers with the same level of probability of occurrence may have different levels of evaluative expectations. One customer may want a clerk to wait on them immediately as they enter the store, while another customer might not want a clerk to wait on them or even approach them until they have asked for the clerk's help. Both predictive and evaluative expectations are necessary when studying the role of expectations on customer satisfaction because some service or product attributes may not be desired by all customers.

Customer Satisfaction

Oliver (1997) reports that consumers want to be satisfied. Consumers liken satisfaction to a goal to be attained from the consumption of products and services, and consumers view a satisfactory purchase as an achievement. The researcher identifies three major reasons why consumers seek satisfaction (p. 10):

- Satisfaction itself is a desirable end state of consumption or patronization; it is a reinforcing, pleasurable experience.
- It obviates the need to take additional redress actions or to suffer the consequences of a bad decision.
- It reaffirms the consumer's decision-making prowess.

In the service industry customer satisfaction literature, a consensus has developed among researchers that service quality is a major factor in customer satisfaction (Athanassopoulos, 2000; Fornell, Johnson, Anderson, Cha, and

Bryant, 1996; Hallowell, 1996). Cronin, Brady, and Hult (2000) studied customer satisfaction in service industries including fast food, health care, long distance providers and sporting events. The researchers studied the relationship of customer satisfaction in these service industries, to customer's behavioral intentions and found that both service value and service quality are important determinants of customer satisfaction; and service quality, value, and customer satisfaction influence behavioral intentions.

Zeithaml, Berry, and Parasuraman, (1996) concluded that, from an administrative viewpoint, customer satisfaction only matters when it affects behavioral intentions. Fishbein and Ajzen (1975) define behavioral intentions as the processes in which beliefs about goals shape attitudes and attitudes lead to behavior. Therefore, student satisfaction is a primary concern for college and universities' enrollment management programs due to the effect of satisfaction on students' behavioral intentions and retention.

Dabholkar, Shepherd, and Thorpe (2000) used the disconfirmation model and a modified version of the SERVQUAL instrument (Parasuraman, Zeithaml, and Berry, 1988) to measure the mediating role of customer satisfaction of the service quality effects on behavioral intentions. The results of the study indicate that customers evaluate a service and service quality differently and customer satisfaction with service quality influences behavioral intentions. Results supported a conceptual framework where satisfaction has a strong mediating effect on behavioral intentions. Service providers, such as institutions of higher

education, are reminded that overall satisfaction influences customers' (students) intent to repurchase a service and to refer others to their service.

Customer Expectations and Satisfaction of Services

Bolton and Lemon (1999) integrated the expectancy disconfirmation and equity theories from the consumer behavior literature to examine the relationships in the services industry among customer usage, payment equity, and satisfaction. The researchers studied patronage behavior in two different service industries and proposed that a customer's perception of payment equity, and the comparison to actual payments, combined with the customer's normative expectations will influence satisfaction. Normative expectations are evaluations of whether the actual payment is higher or lower than it should be.

The customer's attitude about the fairness or equity of the exchange of payment for the service affected the customer's satisfaction and usage of the service. Results indicated that there was a strong relationship between customer's evaluations of payment equity and satisfaction. The customer's perceptions of fairness of the exchange directly affected the customer's overall satisfaction and continued usage of a service (Bolton and Lemon, 1999).

Research undertaken in the hotel services sector examined price performance consistency and its relationship to service performance expectations and satisfaction. Multimedia technology was used to simulate a hotel service exchange, in which 200 adults considered to be experienced travelers participated. Results indicated that performance expectations significantly

affected performance satisfaction only when price perceptions and performance were consistent. When performance and price are not consistent, customer expectations do not have any effect on the customer's evaluation of service performance or overall satisfaction. (Voss, Parasuraman, and Grewal, 1998).

Cronin and Taylor (1992) used SERVPERF, a performance based scale of service quality, and collected data from personal interviews of 660 consumers in a mid-sized city in the southeastern United States. Respondents were asked about the service quality offered by eight firms in four service industries: banking, pest control, dry cleaning, and fast food. Results indicated that service quality is an antecedent of customer satisfaction and customer satisfaction has a stronger influence on purchase behavior than service quality does.

The researchers also found that the definition of service quality may differ from one service industry to another. In low involvement services, such as dry cleaning and fast food, the above results could not be generalized to higher involvement services such as health care or financial services (Cronin and Taylor, 1992).

Student Expectations

Student expectations can have both positive and negative effects for an institution. If an institution meets and/or exceeds students' expectations, and they are a satisfied customer, they will "repurchase" the service resulting in taking more classes, recommending the institution to friends and family members, and contributing to alumni associations. However, if the students'

expectations are not met and they are a dissatisfied customer, then they will most likely leave and speak unfavorably about the institution (Pate, 1993). Levitz and Noel (1989) stated:

> Expectations are critical because they serve as the points from which students make all qualitative judgments of an institution. If the actual experience is far more positive than a student expected, their general levels of satisfaction are likely to be very high. If the actual experience is more negative than the student expected, their general levels of satisfaction with the various facets of the educational experience are likely to be very low (p. 2).

Results of a national study conducted between 1994 and 1998 indicated that the more a college or university costs to attend, the higher the expectation levels of students. Whether or not the student paid their tuition and other educational expenses or the college or university pays through scholarships and other forms of financial aid did not affect the students' expectation levels. Also, over-promising and under-delivering in the recruitment process was indicated and resulted in higher levels of student expectations and lower levels of student satisfaction (Lowe, 2000).

The results of the study also showed that students have higher expectation levels in areas they consider to be basic personal needs such as parking, and safety and security (Lowe, 2000). Breindel (1995) found that the largest

performance gap scores between expectations and satisfaction occurred in parking, registration, concern for students, financial aid notification, and security.

Over fifty focus group sessions were conducted following the aforementioned study and revealed the following student expectations. Generally, students' expectations increase with age, and females indicate higher expectation levels than males. Full time students' expectation scores are higher than part time students; students attending classes during the day have higher expectation levels than evening and weekend students; and freshman and sophomores indicate higher expectations than juniors and seniors. Hess (1997) confirmed these results among freshmen and older students' expectations. Students who live on campus have higher expectations than those who live off-campus and African American students have the highest expectations of all ethnic groups (Lowe, 2000).

Spreng and Mackoy (1996) used the disconfirmation theory when studying undergraduate college students. The researchers used the higher education institution as a service setting and found that perceptions of service quality were not directly effected by the disconfirmation of expectations, but the perceptions of service performance indirectly effected students' expectations positively. While expectations had a negative effect on satisfaction through disconfirmation, both student satisfaction and perceptions of service quality were positively effected by perceived performance. Therefore, these results indicate the influencing role expectations have on perceived performance. Service

providers need to acknowledge that while raising expectations may lead to increased satisfaction through performance perceptions, higher expectations may also lead to decreased satisfaction through disconfirmation.

Student Satisfaction

In a national study, data were collected from 423,003 students from 745 colleges and universities during the period of 1994- 1998 using the SSI. While it is unlikely that one demographic variable or characteristic alone would account for differences in students' levels of satisfaction, the following demographic characteristics were found to be consistent with student satisfaction levels across this national study (Lowe, 2000).

There is a tendency for student satisfaction scores to increase with age, and females generally have higher satisfaction levels than males. Freshmen and sophomores have higher satisfaction levels than juniors and seniors; part-time students have higher satisfaction levels than full-time students; and students that attend classes during the day show higher levels of satisfaction than evening or weekend students. Caucasian students have higher levels of satisfaction than other ethnic groups, and students living on campus indicate higher levels of satisfaction than those living off campus (Lowe, 2000).

Franklin and Shemwell (1995) studied student satisfaction in a regional research university using the disconfirmation model of customer satisfaction. The researchers used the SERVQUAL instrument (Parasuraman, Zeithaml, and Berry, 1988) to obtain the quality gap between student's expectation levels and

satisfaction levels. The researchers concluded that satisfaction did not meet student's expectations of their educational experience. Parasuraman et al (1988) used the term quality gap to describe the failure of service delivery to meet or exceed customer/student expectations.

Ruby (1998) confirmed these results when studying the expectations and satisfaction levels of students taking general education courses at ten institutions also using the SERVQUAL model, and found that the greatest gains in student satisfaction were discovered when the gaps between expectation and satisfaction were assessed. Therefore, the disconfirmation theory served as a good predictor of student satisfaction. Respondents rated reliability as the most important factor for academic records and financial aid, and empathy as the most important factor for admissions and career services. Students indicated the highest levels of service quality in admissions and the lowest levels in financial aid.

Using critical incident methodology, Danielson (1998) found that students expressed satisfaction with their college experiences when the situations focused on involvement and interaction with people. Students expressed dissatisfaction when situations involved the students' perceptions of unfair treatment and difficulties with the bureaucratic system of academia.

Research Using the Student Satisfaction Inventory

The SSI has been used to measure different aspects of student satisfaction in a variety of educational institutions. Research has shown that students in private and public institutions share some common areas of expectations and

satisfaction. Harmon (1999) used the SSI to measure the expectations and satisfaction of traditional and non-traditional students in a four-year private college. Traditional students had higher expectation levels on the SSI dimensions that related to sense of belonging, financial aid, athletic programs, and career services. Hurley (1999) used the SSI to compare the expectations and satisfaction levels of students in a post-secondary religious school. The academic advising and campus climate dimensions were rated as important and also rated as areas of the college experience where students were satisfied.

Lambertz (1998) assessed whether deciding to return to college could be predicted by comparing the performance gap scores on the scales measured by the SSI. While it was found that student satisfaction was an important measure of student retention, the performance gap scores of the SSI could not be used to predict a student's choice to continue or return to college.

Helmich (1999) used the SSI to determine if the satisfaction of college students could be explained by individual student characteristics. The results of the study showed that women were more satisfied with campus climate and academic support services, whereas, men were more satisfied with academic advising. African-American students were more satisfied with dimensions relating to service quality and Hispanic students were more satisfied with campus life. Native American students showed lower satisfaction levels with areas relating to administrative effectiveness.

Anthrop (1996) compared the expectation and satisfaction levels of freshmen to determine efforts needed for retention. The SSI was used to measure student expectations and satisfaction and specific independent variables for the study were employment, residence, and institutional choice. The results of the study indicated that students who were employed rated campus climate, concern for the individual, and recruitment and financial aid higher than students who were not employed. Students who lived in dormitories or elsewhere had higher overall satisfaction scores than those students living with their parents, and students who were attending an institution that was their first choice showed higher overall satisfaction scores than those attending an institution that was their second or third choice.

Rodriguez (1999) used the performance gap scores from the SSI to examine the expectation and satisfaction differences using four selected scales of the SSI: 1) campus climate, 2) campus life, 3) campus support services, and 4) instructional effectiveness. The performance gap scores from these selected scales as dependent variables were analyzed with the independent variables class level (freshmen and seniors), gender, and age. Results indicated that freshmen showed higher levels of satisfaction on the campus climate, campus life, campus support services, and instructional effectiveness scales. Seniors indicated higher levels of expectations on the campus support services and instructional effectiveness scales.

Research Regarding Selected Variables

Four scales of the SSI were selected for this study: 1) academic advising, 2) campus climate, 3) instructional effectiveness, and 4) recruitment and financial aid. These scales were selected based on the previous literature, and information obtained during focus group discussions, and interviews with university administrators, deans, and department chairs at the four institutions used in this study.

Focus groups were held during summer orientation sessions for incoming freshman and students transferring from community colleges or other universities. These focus groups occurred on the campus of a large state land-grant university; therefore, none of the students participating in the focus groups completed the survey used in this study. The focus group participants indicated that they were anxious about the difficulty of courses and assignments, enrolling in the right courses at the right time, and balancing time for work and school. Eighty-six percent of the focus group participants indicated that they would be working while attending college. The results of these focus groups showed that academic advising, instructional effectiveness, and employment were concerns for these students, and were therefore included as variables in this study.

Academic Advising

Academic advising is more than just a process of advising students about which classes to take, and is often the only reason for faculty and student contact outside the classroom. Advising offers many opportunities for faculty and

students to build rapport by discussing academic goals and personal issues (Kadar, 2001). Tinto (1993) indicated that personal contact between students and faculty is a necessary factor in student retention. Hurley (1999) using the SSI, found that undergraduate students rated the academic advising dimension as important and a dimension in which they indicated satisfaction.

Faculty members in the merchandising, clothing and textiles, or design program areas at each of the four institutions participating in this study have an average of 43 advisees, teach an average of 11 hours per semester, and serve on an average of three departmental, college, or university committees. Each faculty member interviewed indicated that they did not spend as much time with each advisee as they would like to. Courses in these program areas are often taught only once per year or in alternating years, have pre or co-requisites, or must be completed before enrolling in upper division classes. Therefore, academic advising is critical for degree completion in a timely manner (personal communication, Dr. Sue Bailey, 2000; Dr. Jamie Kridler, 4/01; Mrs. Harriet Estes, 3/01; and Dr Teresa Robinson, 3/01, faculty members at three of the four universities selected for this study).

The results of the Tinto (1993; 1987) and Liu and Liu (1999) studies indicated that the student-faculty relationship was critical to student retention. Based on this information gained from the focus groups and discussion with faculty and administrators at the selected universities, and because academic

advising was cited as one of four very important scales in a national study of student satisfaction (Lowe, 2000), it was selected for this study.

Students are increasingly concerned about academic advising and the academic advising dimension of the SSI is one of the four dimensions that has achieved national prominence (Lowe, 2000). Dobbins (2000) studied undergraduate students in a large private university and found that the personal attention students get from faculty and the faculty's concern for students' needs and interests were strongly related to students' overall satisfaction with the college experience. Good academic advising is often underestimated in terms of its affect on student satisfaction with the college experience (Light, 2001; Matosian, 1999), and unfortunately there is a trend toward faculty spending less time in academic advising activities and interacting with students (Milem, Berger, and Dey 2000).

In a national study data were collected from 423,003 students from 745 colleges and universities during the period of 1994- 1998 and respondents reported increased expectations and increased satisfaction with academic advising. The importance of this area of the college experience cannot be ignored. Students are insisting on quality advising, and generally prefer faculty advisors to advisors working in centralized advising centers or professional advisors. It is evident by these national results that quality academic advising is a trademark of successful institutions (Lowe, 2000).

Spreng and Mackoy (1996) studied undergraduate marketing students' evaluations of academic advising services. This setting was viewed as a service setting because students believe they pay for these services through tuition and fees. Also, there is a payment of time and effort on the part of the student to meet with an academic advisor; and finally, if the level of service is poor (e.g. wrong or incomplete), the student may experience very negative consequences (e.g. not graduating on time, taking wrong classes).

The students completed a pre-experience questionnaire about their expectations of their advising appointment. After their advising appointment, students completed a post-experience questionnaire that measured the students' perceptions of the advising experience (perceived performance). The difference between what the student expected and what the student received, referred to as a gap score, was used to measure the students' disconfirmation. Using a structure equation model, the researchers found that the students' expectations had a negative effect on satisfaction through disconfirmation, but a positive effect on satisfaction and perceived service quality through perceived performance. Overall, the results indicated that students were satisfied with the academic advising service and the quality of the service, but not to the point they expected (Spreng and Mackoy 1996).

Belchier (1999) studied students in twenty-one classes at a large public university to determine their satisfaction with their academic advisor. The highest degree of satisfaction was reported by students advised through an

advising center. Students who were advised by a faculty member reported somewhat lower levels of satisfaction, and students advised by peer counselors reported being the least satisfied. Advising centers were preferred because they were viewed as taking a more proactive approach to advising and faculty advisors were preferred because of the personal relationships formed with their advisees. Students indicated that peer counselors were the least preferred because they wre often unavailable or unknown to the advisee.

Campus Climate

The campus climate dimension of the SSI assesses the degree to which students experience campus pride and feelings of belonging, as well as, the effectiveness of a campus's communication channels. Statements in this scale of the SSI refer to students believing they are welcome at an institution, get their questions answered timely and accurately, and receive correct information. Tinto (1993) found that a student's sense of belonging and student involvement in all aspects of the college or university experience, were both strong predictors of student retention.

Hurley (1999), using the SSI, found that students rated the campus climate dimension as important and a dimension in which they indicated satisfaction. This dimension of the SSI has also achieved national prominence (Lowe, 2000), and based on the focus groups conducted prior to this study, a "sense of belonging" is important to both student satisfaction and retention, and therefore, was selected as a variable for this study.

Instructional Effectiveness

The "instructional effectiveness" dimension of the SSI assesses the student's overall academic experiences, including curriculum, the effectiveness of instructors, and the institution's overall commitment to academic excellence. Pascarella and Terenzini (1991) reported that, in order to maintain overall student satisfaction, institutions must challenge their faculty to evaluate current teaching methodologies and be sure these methodologies are consistent with today's students' needs. The researchers also reported finding differences in students who persisted with the education and those who left the institution without completing their degree. Students who persisted with their education indicated that they were involved in discussions with faculty outside the classroom (Pascarella and Terenzini, 1991).

House (1999) found that students were more likely to continue in their education and earn an undergraduate degree if they were more satisfied with the overall quality of instruction. Noel (1994) reported that students evaluate instructional effectiveness based not only on the quality of instruction, but faculty availability and involvement outside the classroom. Undergraduate students in a psychology department at a major research university in the southeastern United States recently indicated that they would prefer that courses be offered more frequently. The respondents indicated that strengths in instructional effectiveness included ongoing research, course content, and the utility of information (Corts, Lounsbury, Saudargas, and Tatum, 2000).

Davis and Swanson (2001) conducted a critical-incident study of marketing students at three mid-sized universities in the southeast, southwest, and Midwest, respectively. Students were asked to describe a time when they had either a very satisfying or a very dissatisfying experience in a classroom. Satisfying incidents reported by students included: the professor's dependability class preparation, availability and willingness to help. Students also reported satisfaction with instruction in terms of the professor's enthusiasm, ability to inspire knowledge and understanding of the material, personalized attention to students, and willingness to listen to various points of view.

Dissatisfying incidents included: professor's inability to control their temper, impatience, being rude or ignoring students, and setting negative expectations of students. Students who reported satisfying incidents were more likely to discuss the incident with friends, whereas students who reported dissatisfying incidents were more likely to discuss the incident with other students. The results also indicated that the majority of dissatisfied students tended to use word-of-mouth communication with friends, other students, and the public, instead of reporting their dissatisfaction through a formal complaint process (Davis and Swanson, 2001).

Perry and Smart (1997) identified several components of teaching effectiveness and Young and Shaw (1999) strengthened their identification by surveying graduate and undergraduate students at a mid-western university. In the latter study, effective communication, a comfortable learning atmosphere,

and concern for students were all among the criteria for an effective teacher. Respondents also rated teacher effectiveness based on the value that they, the student, placed on the course. Hence, there is a relationship in this study between teacher effectiveness and satisfaction with the curriculum and course assignments.

Krehbiel, McClure, and Pratsini (1997) studied the student satisfaction of undergraduates based on the disconfirmation theory. Students in a decision sciences course rated their overall satisfaction with the course relative to their expectations by using a 3-level disconfirmation scale. The questionnaire offered three possible answers for each question: a) much better than expected, b) about as expected, and c) much worse than expected, and asked respondents to indicate with a percentage (100, 80, 60, 40, 20, and 0) how likely they were to take another decision sciences course, and how likely they were to refer other students to decision sciences courses.

The results indicated that the level of disconfirmation largely impacted students' likeliness of taking another decision sciences course or referring others to take a decision sciences course. The researchers also concluded that students should be viewed as customers and satisfying customers/students is critical for repurchase and referral decisions (Krehbiel, McClure, and Pratsini, 1997).

Universities in the Tennessee Board of Regents System are examining ways to continue to provide quality educational services with limited resources. This examination includes possibly reducing the number of credit hours required

for a bachelor's degree, which would mean eliminating and/or combining courses (Defining Our Future, 2001). Colleges and Universities must determine the curricular and the instructional methods that are effective. The instructional effectiveness dimension of the SSI also assesses curriculum aspects and will provide results that will help administrators and faculty determine courses that could be combined and/or eliminated.

Recruitment and Financial Aid

Financial aid to college students is sharply rising (Brownstein, 2001; Mulhauser, 2001), and there have been changes in financial aid policies at the federal and state levels (National Center for Education Statistics, 1997). Fifty-five percent of undergraduate students received either institutional or governmental financial aid or both in 1999-2000. This percentage was an increase from fifty percent during 1995-1996. Along with an overall increase in the amount of financial aid being received, the average amount being awarded is also sharply increasing (Mulhauser, 2001).

Paulsen and St. John (1997) reported that financial aid influences both institutional choice and persistence in college. Heller (1997) confirmed that receiving financial aid significantly affects the likelihood that a student will choose to enroll in the institution that offers financial aid.

Over half of all students attending a TBR institution are receiving financial aid in the form of scholarships, grants, work-study programs or loans (personal communication, Dr. George Maylow, Vice-Chancellor, Tennessee

Board of Regents). Based on this information, employment and financial aid were included as variables in this study.

Currently there is concern about financial aid diverting from need-based student aid to merit-based student aid. There is evidence that state's support for merit-based aid programs increased much more rapidly than need-based aid programs between 1980 and 2000. Additionally, there has been a shift during the 1990's from a focus on serving the most economically challenged through need-based aid programs to rewarding and attracting exceptional students with merit-based aid programs. Tennessee awarded three less need-based aid packages in 1999 than in 1994 and the non-need based aid packages awarded remained the same from 1994 to 1999 (Longanecker, 2002).

Major

The Engel, Kollat, Blackwell Model (1968) was modified by Engel, Blackwell, and Miniard (1986) to include variables that influence the decision process of consumer behavior. Motives or goals were considered influential on the decision process of purchasing or using products and services, which in turn lead to consumer satisfaction or dissatisfaction. For the purpose of this study, declaring a major was viewed as a motive or goal in the decision process of attending an institution of higher learning.

Franklin (1994) surveyed over 2600 undergraduate students at a state university in Tennessee and found a significant predictive relationship between overall student satisfaction and major. Students who have declared a college

major have set a goal for themselves. Lowe (2000) reported the results of a longitudinal study using the SSI. Data were collected from 423,003 students from 745 colleges and universities during the period of 1994-1998. Results indicated that students with higher levels of satisfaction were more goal-oriented and would become some of the institution's most dedicated alumni. Tinto (1993) asserted that students who do not achieve goal clarification are at risk of not completing their degree.

Hartman and Schmidt (1995) conducted a student/alumni satisfaction study and found that satisfaction is a multidimensional process and is dependent on the students' goal development for their educational experience. The researchers used the term "outcome" to identify the value-added dimension of the college experience. In other words, the direct and indirect benefits of a student's college experience. Performance was defined by the researchers as "the interaction between an institution of higher education, and a student as an active participant in creating the performance of an educational process" (p. 200).

Results of the study indicated that if a student's goals are poorly formed, they tend to base their satisfaction judgements on institutional performance, whereas, if their goals are well formed, they tend to base satisfaction judgements on the outcomes of institutional performance (Hartman and Schmidt, 1995). Those students who have selected a major (set a goal) for themselves should be more inclined to base their satisfaction judgements on the outcomes of their

college experience rather than just the interaction between the student and the institution.

Employment

Most students enrolled in a merchandising, clothing and textiles, or design program at one of the four Tennessee Board of Regents (TBR) Institutions participating in this study are employed at least part-time while attending college (personal communication, Dr. Sue Bailey, 1998-2002; Dr. Jamie, Kridler, 4/01; Mrs. Angela Lewis, 7/00, 6/01; and Dr Anna Roberts, 4/01, faculty members at three of the four universities selected for this study).

The National Center for Education Statistics (1998) reported that almost three out of four undergraduate students work while attending a college or university for almost 90% of the time that they are enrolled, and work an average of 31 hours per week. In a recent study of undergraduate students, participants that did not work while in college indicated that they had established a relationship with faculty and believed this relationship had helped them remain persistent in their degree completion (Furr and Elling, 2000).

The average number of years to complete a baccalaureate degree among college and university students is currently five and is stretching to six. The extended enrollment period is partly due to the number of students employed. More students are enrolling for fewer hours each semester because they are working more hours in order to pay their educational expenses (Plisko, 1999).

Lowe (2000) found that students who are employed have higher expectations scores and higher satisfaction scores than those who are not employed. Astin (1993) reported that working during college was negatively associated with completing an undergraduate degree and lower levels of satisfaction in almost every area of university life; however, Pascarella and Terenzini (1991) previously found that limited employment can actually help student persistence and academic achievement.

Institutional Choice

Students who attend an institution that is their first choice have higher expectations and higher satisfaction scores than those who are attending an institution that is their second, third, or lower choice (Lowe, 2000). Walter (2000) examined undergraduate students using the SSI and found that working off campus and attending an institution that was not their first or second choice negatively influenced student persistence.

Method of Payment of Educational Expenses

Currently colleges and universities, especially in the Midwest and Southeast, are considering and implementing major tuition increases in reaction to the lack of state funding (Brownstein, 2001a). A recent study indicated that tuition in public colleges and universities has increased an average of 7.7%, the largest since 1993, and is prompted by reductions in state budgets (Brownstein, 2001b).

Funding for undergraduate education generally consists of four major sources: 1) the federal government, 2) the student's home state, 3) the selected institution, and 4) private scholarships. Approximately 70% of all financial aid is from the federal government in the form of Pell Grants, Supplemental Educational Opportunity Grants (SEOG's), federal work-study programs, and Perkins low-interest loans, and Stafford subsidized and unsubsidized loans. Individual state governments also provide grants, tuition assistance, fee reductions, and loans (Sanchez, 2000). Student loans are replacing federal grants as the primary source of financing higher education (Burd, 2001; Gehring, 2001; Lange and Stone, 2001; DeBard, 2000).

Table 1 shows the percentage of grants, scholarships, and loans that students attending one of the four universities in this study receive and the average dollar amount of their reward (National Center for Education Statistics, 2002). The largest percentage of students fall into the scholarship category, even though the average dollar reward is lower than the average dollar reward for grants or loans. The statistics mirror those found in the literature, in that more students in these four universities receive loans as opposed to federal grants (Burd, 2001; Gehring, 2001; Lange and Stone, 2001; DeBard, 2000). These statistics do not show the number of students receiving more than one type of aid, which may often occur (personal communication, financial aid officers at the four selected universities).

Table 1: Financial Aid Information

Type of Aid	Average Percentage of Students receiving aid	Average Amount of aid received
Federal grants	20	$2390
Scholarships	26	$1825
Loans	23	$2495

CHAPTER 3

METHODOLOGY

The purpose of this study was to assess the differences in expectations, as examined by the importance score on the SSI, satisfaction levels, and the performance gap scores of undergraduate students attending a university in the Tennessee Board of Regents (TBR) System who have declared a major (merchandising/clothing and textiles/design), and of those who have not declared a major. The Tennessee Board of Regents is the governing body for all public universities, community colleges, and technology centers in the state except for the universities in the University of Tennessee system. University and community college presidents and technology center directors report to the chancellor and members of the board of regents; and budgets and various personnel policies are set by the board of regents.

The study examined the performance gap scores of four of the twelve scales of the SSI: 1) advising effectiveness, 2) campus climate, 3) instructional effectiveness, and 4) recruitment and financial aid. The relationships among the performance gap scores and employment status (employed or not employed), payment method of educational expenses (self, parents, employer, loan, scholarship, or grant), and institutional choice (first, second, or third) were also studied.

Undergraduate students at four state universities in Tennessee were surveyed, using the Student Satisfaction Inventory (SSI) regarding how

important various expectations' statements are to them, their satisfaction levels, and the performance gap scores of the four selected scales (i.e. academic advising, campus climate, instructional effectiveness, and recruitment and financial aid) according to major, employment status, payment method of educational expenses and institutional choice. This chapter identifies the dependent and independent variables for the study and describes the methodology, design of the study, instrument, data collection, and data analysis.

Dependent Variables

The dependent variables for this study were the performance gap scores on the four selected scales of the SSI: 1) academic advising, 2) campus climate, 3) instructional effectiveness, and 4) recruitment and financial aid. The difference in the importance (expectations) score and the satisfaction score is known as the performance gap score. An explanation of each of the four selected scales and the other eight scales of the SSI is included later in this chapter.

Independent Variables

The independent variables for this study were college major (declared (merchandising/clothing and textiles/design or undeclared), employment status (employed or not employed), method of payment for educational expenses (self, parents, employer, loan, scholarship, or grant), and institutional choice (first, second, or third).

Student Satisfaction Inventory

The Noel-Levitz Student Satisfaction Inventory (SSI) (Schreiner and Juillerat, 1993) has been used previously in dissertations for measuring student expectations and satisfaction. The SSI asks students to rate the level of importance they assign to various expectation statements regarding twelve areas of their college experience: 1) academic advising, 2) campus climate, 3) campus life, 4) campus support services, 5) concern for the individual, 6) instructional effectiveness, 7) recruitment and financial aid, 8) registration effectiveness, 9) response to diverse populations, 10) safety and security, 11) service excellence, and 12) student centeredness.

The difference in the importance (expectations) score and the satisfaction score is known as the performance gap score, and was computed for this study on eleven of the twelve scales. The twelfth scale, "Responsiveness to Diverse Populations" only measures satisfaction. The importance dimension was not measured due to the sensitivity of the questions and the implications of asking the majority of the population about issues that only affect a minority of the population (Juillerat, 1995). Four scales were examined for this study: 1) academic advising, 2) campus climate, 3) instructional effectiveness, and 4) recruitment and financial aid.

The Student Satisfaction Inventory (SSI) (Schreiner and Jullierat, 1993) was developed as a comprehensive instrument to measure students' expectations and satisfaction levels with their experiences in an institution of higher learning.

Currently, the instrument is used by over 1000 colleges and universities (Noel-Levitz, 2000). There are three versions of the instrument available: 1) the Four-year College and University Version, 2) the Community, Junior, and Technical College Version, and 3) the Career and Private School Version (Schreiner and Juillerat, 1993). The Four-year College and University Version was used in this study.

The scale was developed by interviewing students and educational experts to assess what aspects of the educational experience were important to overall student satisfaction. Previous instruments for determining student satisfaction lacked statistical rigor and theoretical foundation, and were uni-dimensional, in that they did not recognize the role of expectations in determining satisfaction (Juillerat, 1995).

The SSI is based on consumer behavior principles and is a reflection of current consumer trends in higher education. The instrument is two-dimensional in the assessment of student satisfaction. First, the SSI assesses a student's expectations by asking the importance of expectations' statements regarding various campus services and programs. Second, the SSI assesses a student's current level of satisfaction with these same services and programs. Respondents complete the SSI by indicating on Likert scales how important something is to them and how satisfied they are that the college or university is meeting that expectation (Schreiner and Juillerat, 1993).

The instrument consists of seventy-three items that make up twelve comprehensive scales. Each item on the scale is stated as a positive expectation, for example, "There is a good variety of courses provided on this campus." Respondents rate how important the particular expectation is to their satisfaction level with the educational experience, by using a seven-point Likert scale ranging from one (not at all important) to seven (very important). Respondents may select a "not applicable" option if their college or university does not offer a service or program or if they have not used a particular service or program (Juillerat, 1995).

Respondents then rate their level of satisfaction that the institution has met their expectation, also using a seven-point Likert scale with one (not at all satisfied) to seven (very satisfied). As with the expectation statement, the respondent may select a "not applicable" option if their college or university does not offer a service or program or if they have not used a particular service or program. The difference between the importance score and the satisfaction score is known as the performance gap score (Juillerat, 1995). Completed surveys were sent to USA Noel-Levitz Centers Inc. for initial scoring and a disk with the raw data was purchased from the company to provide the data for further statistical analysis for this study.

In addition to the seventy-three items that comprised the twelve comprehensive scales, the SSI allows customization of up to eleven items for a particular study. The additional questions, determined by the researcher for this

study, dealt with changing majors, transferring from another college or university, and payment of educational expenses. A majority of students majoring in a merchandising/clothing and textiles/design program at one of the four universities in the TBR system used in this study, have changed to this major from another college major, and have transferred from a community college (personal communication, Admissions Representatives from the four universities used in this study). These additional questions are shown in Appendix C.

The SSI is comprehensive in that it measures a wide range of services and programs offered by institutions of higher learning. It provides useful information to faculty and administrators because what is important to one student may not be important to another student; therefore, the SSI allows educational institutions to focus on what their students indicate is important and whether or not the institution is meeting their expectations (Juillerat, 1995). The SSI also provides national benchmark data for comparison with other institutions (Noel-Levitz, 1997).

Dimensions of the Student Satisfaction Inventory (SSI)

The Student Satisfaction Inventory (SSI) measures the importance of various expectation factors to students and their level of satisfaction that the college or university is meeting their expected level of importance on twelve comprehensive scales. The following descriptions of these scales are from Noel-Levitz (1997).

1. Academic Advising Effectiveness: assesses the academic advising program based on advisor knowledge, approachability, competence and concern for the student.
2. Campus Climate: assesses the degree to which students experience campus pride and feelings of belonging, as well as, the effectiveness of a campus's communication channels.
3. Campus Life: assesses the effectiveness of student life programs such as residential life and intramural athletics, and campus policies affecting student's rights and responsibilities.
4. Campus Support Services: assesses the quality of support programs and services that are utilized by students to help make their university experience better and more productive.
5. Concern for the Individual: assesses institutional treatment of students as individuals.
6. Instructional Effectiveness: assesses the student's overall academic experiences, including curriculum, the effectiveness of instructors, and the institution's overall commitment to academic excellence.
7. Recruitment and Financial Aid Effectiveness: assesses the effectiveness of the student admissions and enrollment services, and the equity of financial aid programs.
8. Registration Effectiveness: assesses the effectiveness of the institution's registration program.

9. Responsiveness to Diverse Populations: assesses the institution's commitment to certain groups of people, such as commuters, older students, and under-represented populations.
10. Safety and Security: assesses the institution's commitment and responsiveness to student's safety and security while on campus, in terms of personnel and facilities.
11. Service Excellence: assesses the student's perceived attitude of staff members toward students.
12. Student Centeredness: assesses the institution's efforts to let the student know they are important, and welcomed.

Reliability and Validity

Each of the twelve scales of the SSI has an established reliability. Cronbach's Coefficient Alpha was .97 for the importance scores, and .98 for the satisfaction scores, which shows internal consistency of each item to the instrument. The reliability coefficient was .85 for the importance scores and .84 for the satisfaction scores when a test-retest was conducted (Juillerat, 1995).

Convergent validity was measured by correlating the satisfaction scores of the SSI with the satisfaction scores measured by the College Student Satisfaction Questionnaire (CSSQ) (Betz, Klingensmith, and Starr, 1970), which is also a statistically reliable instrument for measuring student satisfaction. The Pearson correlation between the two instruments is .71 and is high enough to indicate that the SSI and the CSSQ measure the same construct of student

satisfaction, but low enough to indicate the distinction of each instrument (Juillerat, 1995). The validity of the importance scores of the SSI could not be correlated with another instrument because there is no other instrument that measures student expectations as compared to their satisfaction (Noel-Levitz, 1997).

The four selected scales of the SSI were analyzed to determine their reliability for this study. Cronbach's Coefficient Alpha was above .70 for each scale's importance and satisfaction dimensions.

Sample

The sample for this study was taken from the population of students enrolled in four universities in the Tennessee Board of Regents (TBR) system. Respondents from this population were undergraduate students at one of the four selected universities majoring in a merchandising, clothing and textiles, or design program and students who had not declared a major. All classifications of undergraduate student respondents who had declared a major were represented. However, students enrolled in a TBR institution must declare a major after completing forty-eight credit hours; therefore, student respondents in the undeclared major category are only represented by freshmen and sophomores.

The department chairs at each of the five universities in the TBR system that offered a merchandising, clothing and textiles, or design program were contacted and asked permission to survey their students. Four of the five universities agreed to participate. Advisors for students who had not declared a

major at each of the four participating universities were contacted and asked if these students could also be surveyed. Students who had not declared a major at three of the participating universities were surveyed. A total of 316 surveys were collected during spring 2001.

Data Collection

The Student Satisfaction Inventory (SSI) was administered in classes at the respondent's respective institutions. A coupon for a free Personal Pan Pizza from Pizza Hut was given as an incentive to complete the survey. Along with the survey, each respondent was given an informed consent form (see Appendix B) outlining the research study and indicating that their participation is voluntary, their responses would be confidential and anonymous, and that results would only be reported in aggregate form. The informed consent form also indicated that while there is a space on the SSI for respondents to write their social security number, they were informed to leave that space blank. One hundred and seventy-nine surveys were collected from students who had declared a major and one hundred and thirty-seven surveys were collected from students who had not declared a major.

Data Analysis

The demographic data for this study were analyzed using descriptive statistics. In addition, three statistical methods were used to analyze the data from this study: Multiple analysis of variance (MANOVA), analysis of variance (ANOVA), and the Tukey's post hoc test for multiple comparisons. Each

hypothesis was analyzed using the Statistical Analysis Software 8.0 (SAS, version 8.0). The performance gap scores were analyzed based on the level of difference between the importance (expectations) mean scores and the satisfaction mean scores for each of the four selected scales of the SSI. If a performance gap score was above zero, this indicated unmet expectations. If a performance gap score was below zero, the students' level of satisfaction exceeded their level of expectations.

Multivariate analysis of variance (MANOVA) was used to determine if there were significant differences among the performance gap scores on the four selected scales of the SSI (dependent variables) and the four independent variables and if there were interactions among the variables. If there was no interaction, tests for main effects were conducted. Analysis of variance (ANOVA) follow-up tests were used to determine if there were differences among the mean performance gap scores of the respondents based on each dependent variable (i.e. academic advising, campus climate, instructional effectiveness, and recruitment and financial aid) combined with each independent variable (i.e. major, employment status, method of payment of educational expenses, and institutional choice).

If one of the mean performance gap scores was found to be significantly different, the corresponding hypothesis was rejected and a multiple comparisons test was performed. Follow up tests included the Bonferroni test as an adjustment to control for Type I error and the Tukey's post hoc method for

identifying the differences among groups (Hair, Anderson, Tatham, and Black, 1998).

CHAPTER 4

RESULTS

The purpose of this study was to assess the differences in expectations, as examined by the importance score on the SSI, satisfaction levels, and the performance gap scores of undergraduate students who have declared a major (merchandising/clothing and textiles/design), and those who have not declared a major. The study examined the performance gap scores of four of the twelve scales of the SSI: 1) advising effectiveness, 2) campus climate, 3) instructional effectiveness, and 4) recruitment and financial aid. The relationships among the performance gap scores of the four selected scales and students' employment status (employed or not employed), choice of institution (first, second, or third), and payment of educational expenses (self, parents, employer, loan, scholarship, or grant) were also studied. A description of the sample, the results of the statistical analyses for each hypothesis, and the limitations of the study are included in this chapter.

Description of the Sample

A total of 316 students from four universities in the Tennessee Board of Regents System completed the SSI in spring 2001. All surveys were found to be usable for data analyses. One hundred and seventy-nine students were classified as a declared major and 137 were classified as an undeclared major. Ninety-five percent of the declared majors were female and over 55 percent of the undeclared majors were female. The majority of the respondents was between the ages of 19

and 24, was Caucasian, enrolled full-time, attended classes during the day, was employed at least part-time, and their educational expenses were being paid by their parents. The demographic information for the respondents is shown in Table 2.

Student Importance (Expectations) Scores

Declared Majors

Results of the Student Satisfaction Inventory (SSI) showed that the undergraduate students who had declared a major (merchandising/clothing and textiles/design) indicated importance (expectations) mean scores of over 6.00 of a possible 7.00 on ten of the eleven scales. These scores indicated the dimensions were "important" or "very important". An importance score for the "Responsiveness to Diverse Populations" was not calculated due to the sensitivity of the questions and the implications of asking the majority of the population about issues that only affect a minority of the population (Juillerat, 1995). The highest mean importance score was on the safety and security dimension of the SSI, and the lowest mean importance score was on the campus life dimension of the SSI. The mean importance scores in order of importance for students who had declared a major are shown in Table 3.

Undeclared Majors

The respondents who were classified as undeclared majors indicated importance (expectations) mean scores of over 6.00 of 7.00 on eight of the eleven scales. These scores indicated the dimensions were "important" or "very

important". The highest mean importance score for undeclared majors was also on the safety and security dimension of the SSI and the lowest mean importance score was on the campus life dimension of the SSI. The mean importance scores in order of importance for student who had not declared a major are shown in Table 4.

Student Satisfaction Scores

Declared Majors

Results of the SSI indicated that undergraduate students who had declared a major showed satisfaction levels between "neutral" and "somewhat satisfied" based on mean scores of 4.48 to 5.25 of a possible 7.00 score. The highest mean satisfaction score was on the instructional effectiveness dimension and the lowest mean satisfaction score was on the safety and security dimension. The mean satisfaction scores are shown in Table 3.

Undeclared Majors

Results of the SSI indicated that undergraduate students who had not declared a major showed satisfaction levels between "neutral" and "somewhat satisfied" based on mean scores of 4.45 to 5.81 of a possible 7.00 score. The highest mean satisfaction score was on the academic advising dimension and the lowest mean satisfaction score was on the recruitment and financial aid dimension. The mean satisfaction scores for undeclared majors are shown in Table 4.

Table 2: Demographic Information

Declared Majors	N	%	Undeclared Majors	N	%
Gender			**Gender**		
Female	170	94.97	Female	75	54.74
Male	9	5.03	Male	62	45.26
Total	179	100.00	**Total**	137	100.00
Age			**Age**		
18 and under	1	0.56	18 and under	30	21.90
19 to 24	162	90.50	19 to 24	88	64.23
25 to 34	12	6.70	25 to 34	11	8.03
35 to 44	2	1.12	35 to 44	8	5.84
45 and over	2	1.12	45 and over	0	0.00
Total	179	100.00	**Total**	137	100.00
Ethnicity/Race			**Ethnicity/Race**		
African-American	26	14.53	African-American	21	15.44
American Indian or Alaskan Native	1	0.56	American Indian or Alaskan Native	0	0.00
Asian or Pacific Islander	4	2.23	Asian or Pacific Islander	1	0.74
Caucasian/White	140	78.21	Caucasian/White	106	77.94
Hispanic	0	0.00	Hispanic	2	1.47
Other race	3	1.68	Other race	3	2.21
Race-Prefer not to respond	5	2.79	Race-Prefer not to respond	3	2.21
Total	179	100.00	**Total**	136	100.00
Class Level			**Class Level**		
Freshman	7	3.91	Freshman	98	71.53
Sophomore	26	14.53	Sophomore	34	24.82
Junior	78	43.58	Junior	4	2.92
Senior	65	36.31	Senior	1	0.73
Special student	1	0.56	Special student	0	0.00
Graduate/Professional	2	1.12	Graduate/Professional	0	0.00
Other Class Level	0	0.00	Other Class Level	0	0.00
Total	179	100.00	**Total**	137	100.00
Employment			**Employment**		
Employed	152	85.00	Employed	85	62.00
Unemployed	27	15.00	Unemployed	52	38.00
Total	179	100.00	**Total**	137	100.00
Institutional Choice			**Institutional Choice**		
1st choice	89	50.00	1st choice	93	67.88
2nd choice	71	39.89	2nd choice	35	25.55
3rd choice or lower	18	10.11	3rd choice or lower	9	6.57
Total	178	100.00	**Total**	137	100.00
Method of Payment			**Method of Payment**		
Self	16	9.09	Self	18	13.85
Parents	71	38.64	Parents	63	43.08
Employer	0	0.00	Employer	2	1.54
Loan	44	25.00	Loan	14	10.77
Scholarship	42	23.86	Scholarship	30	23.08
Grant	6	3.41	Grant	10	7.69
Total	179	100.00	**Total**	137	100.00

Table 3: Mean Scores for Declared Majors

Dimension	Mean Imp. Score	Mean Sat. Score	Standard Deviation	PGS*
1. Safety and Security	6.60	4.48	1.12	2.12
2. Academic Advising	6.56	5.16	1.50	1.40
3. Instructional Effectiveness	6.46	5.25	1.03	1.21
4. Student Centeredness	6.37	5.24	1.14	1.13
5. Campus Climate	6.32	5.13	1.02	1.19
6. Registration Effectiveness	6.32	4.94	1.20	1.38
7. Concern for the Individual	6.28	4.97	1.14	1.31
8. Recruitment and Financial Aid	6.25	4.63	1.13	1.62
9. Service Excellence	6.20	4.77	1.11	1.43
10. Campus Support Services	6.19	5.20	1.00	.99
11. Campus Life	5.71	4.75	0.86	.96
12. Responsiveness to Diverse Populations		5.05	1.11	

*Performance gap score

Table 4: Mean Scores for Undeclared Majors

Dimension	Mean Imp. Score	Mean Sat. Score	Standard Deviation	PGS*
1. Safety and Security	6.59	4.86	1.25	1.73
2. Student Centeredness	6.41	5.59	1.45	.82
3. Recruitment and Financial Aid	6.33	4.45	0.98	1.88
4. Concern for the Individual	6.11	5.25	1.15	.86
5. Campus Climate	6.06	5.50	1.13	.56
6. Instructional Effectiveness	6.06	5.65	1.29	.41
7. Academic Advising	6.05	5.81	1.10	.24
8. Registration Effectiveness	6.05	5.32	1.45	.73
9. Service Excellence	5.97	4.89	1.08	1.08
10. Campus Support Services	5.92	5.29	1.20	.63
11. Campus Life	5.26	4.85	.072	.41
12. Responsiveness to Diverse Populations		5.28	1.24	

*Performance gap score

MANOVA Results

Multivariate analysis of variance tests were used to simultaneously examine the relationships between multiple independent variables and two or more dependent variables (Hair, Anderson, Tatham, and Black, 1998). Multivariate analysis of variance tests were conducted using an alpha of .05. Results indicated that there were significant differences in the means of the respondents' performance gap scores on the four selected scales of the SSI (i.e. academic advising, campus climate, instructional effectiveness, and recruitment and financial aid) for the following independent variables: major (declared or undeclared), employment status (employed or unemployed), and institutional choice (first, second, or third).

However, the analysis of variance tests revealed that the variables major and employment status were only significant when interacting with another factor. There were significant interactions between the major and method of payment variables, and the employment status and the method of payment variables. The results of the multi-factor MANOVA are presented in Table 5.

Table 5: MANOVA Results

Variable	*P*
Major	.0034*
Employment Status	.0063*
Institutional Choice	.0007*
Major X Employment Status	.8236
Major X Institutional Choice	.0452
Employment Status X Institutional Choice	.7324
Payment of Educational Expenses	.3676
Major X Payment	.0178*
Employment Status X Payment	.0200*
Institutional Choice X Payment	.0648

*Significant at α=.05

ANOVA Results

For those scales where a significant difference was found and where an interaction occurred, analysis of variance follow up tests were conducted for main effects using a Bonferroni test to control for a Type I error with an alpha of .0125. Results indicated that there were significant differences in the mean performance gap scores on the four selected dimensions of the SSI (i.e. academic advising, campus climate, instructional effectiveness, and recruitment and financial aid) based on particular independent variables or factors. When a

significant main effect was determined, a Tukey's post hoc test for multiple comparisons was conducted.

Hypotheses Tests

The major hypothesis for this study addressed the differences in the respondents' performance gap scores for the four selected scales of the SSI or the dependent variables (i.e. academic advising, campus climate, instructional effectiveness, and recruitment and financial aid) and the four independent variables (i.e. major, employment status, institutional choice, and method of payment for educational expenses).

H_0: There will be no significant differences in the performance gap scores on the academic advising, campus climate, instructional effectiveness, and recruitment and financial aid dimensions of the Student Satisfaction Inventory between undergraduate students based on major, employment status, institutional choice, and method of payment for educational expenses.

Based on the results of the MANOVA Model shown in Table 2, the null hypothesis was rejected.

The following sub-hypotheses were formulated to determine the differences in the performance gap scores of respondents based on each dependent variable combined with each independent variable.

H_{1A}: There will be no significant difference in the performance gap scores on the academic advising dimension of the SSI for undergraduate students who have declared a major and those who have not declared a major.

H_{1B}: There will be no significant difference in the performance gap scores on the campus climate dimension of the SSI for undergraduate students who have declared a major and those who have not declared a major.

H_{1C}: There will be no significant difference in the performance gap scores on the instructional effectiveness dimension of the SSI for undergraduate students who have declared a major and those who have not declared a major.

H_{1D}: There will be no significant difference in the performance gap scores on the recruitment and financial aid dimension of the SSI for undergraduate students who have declared a major and those who have not declared a major.

From the MANOVA results, a significant group effect was found between declared and undeclared majors. Analysis of variance was conducted after a Bonferroni test adjusted the alpha to .0125 to control for Type I error. The univariate follow-up tests revealed that the only differences between declared and undeclared majors occurred on the academic advising dimension.

The mean performance gap score for declared majors was 1.40 on the academic advising dimension, and the mean performance gap score for undeclared majors was .24; therefore, H_{1A} was rejected. Students who had

declared a major had higher performance gap scores than students who had not declared a major. The results from the ANOVA follow-up tests indicated that there were no significant differences in the mean performance gap scores of declared and undeclared majors on the campus climate, instructional effectiveness, or the recruitment and financial aid dimensions of the SSI; therefore, H_{1B}, H_{1C}, and H_{1D} were not rejected.

H_{2A}: There will be no significant difference in the performance gap scores on the academic advising dimension of the SSI for undergraduate students who are employed and those who are not employed.

H_{2B}: There will be no significant difference in the performance gap scores on the campus climate dimension of the SSI for undergraduate students who are employed and those who are not employed.

H_{2C}: There will be no significant difference in the performance gap scores on the instructional effectiveness dimension of the SSI for undergraduate students who are employed and those who are not employed.

H_{2D}: There will be no significant difference in the performance gap scores on the recruitment and financial aid dimension of the SSI for undergraduate students who are employed and those who are not employed.

The MANOVA results indicated that employment status had a significant effect on the performance gap scores of the respondents. However, the ANOVA follow-up tests indicated that significant differences were only found as a result of the interaction of employment status and method of payment for educational

expenses on the recruitment and financial aid dimension of the SSI. Therefore, H_{2A}- H_{2D} were not rejected.

Using an alpha of .05, it was hypothesized that there would be no significant differences in the mean performance gap scores on the recruitment and financial aid dimension of the SSI between respondents who were employed and those who were not employed. To further study the interaction of the employment status variable and the method of payment variable, the Tukey's multiple comparisons test was used to examine all possible comparisons among the SSI dimensions and the employment status of the respondents (Hair et al, 1998).

The Tukey's test revealed a p value of .0024 for unemployed students and a p value of .1489 for employed students, indicating that there were significant differences on the recruitment and financial aid dimension of the SSI between students who were employed and students who were not employed, but only when considering the interaction with the method of payment variable. The differences in the unemployed students' mean performance gap scores on the recruitment and financial aid dimension were only significant as a result of the interaction with the method of payment variable. The mean performance gap scores for the recruitment and financial aid dimension are shown in Table 6.

Out of 316 respondents only two respondents indicated that their employer was paying their educational expenses, so these respondents were dropped from the statistical analysis. Also due to low percentages of students

receiving loans (n=58), grants (n=) and scholarships (n=), these responses were combined and referred to as students receiving financial aid.

Employed students who paid their educational expenses themselves had a mean performance gap score of 1.99 on the recruitment and financial aid dimension of the SSI. Students who were employed and whose parents paid their educational expenses had a mean performance gap score of 1.91, and students who were receiving financial aid had a mean performance gap score of 1.56 on the recruitment and financial aid dimension of the SSI.

Students who were not employed and were paying their educational expenses themselves had a mean performance gap score of -0.71 on the recruitment and financial aid dimension of the SSI. Students who were not employed and whose educational expenses were being paid by their parents had a mean performance gap score of 1.61, and students who were not employed and who were receiving financial aid had a mean performance gap score of 1.24 on the recruitment and financial aid dimension of the SSI.

Continuing to look at the interaction of the employment status and method of payment variables, students who were employed did not show differences in their performance gap scores on the recruitment and financial aid dimension of the SSI based on method of payment for educational expenses. However, the mean performance gap scores for students who were not employed differed based on method of payment of educational expenses. Students who were not employed and were paying their educational expenses themselves had

the lowest performance gap scores. This group of unemployed students had a negative mean performance gap score of -0.71, which indicated that their level of satisfaction exceeded their level of expectations. For this dimension of the SSI, unemployed students receiving financial aid had the next lowest mean performance gap scores followed by unemployed students whose parents were paying their educational expenses. The mean performance gap scores for the recruitment and financial aid dimension are shown in Table 6.

H_{3A}: There will be no significant difference in the performance gap scores on the academic advising dimension of the SSI for undergraduate students who are receiving federal grants or scholarships and those whose education is being financed by themselves, their parents, or their employer.

H_{3B}: There will be no significant difference in the performance gap scores on the campus climate dimension of the SSI for undergraduate students who are receiving federal grants or scholarships and those whose education is being financed by themselves, their parents, or their employer.

Table 6: Mean Performance Gap Scores for Recruitment and Financial Aid Dimension based on Employment Status and Payment Method

	Self	Parents	Financial Aid
Employed	1.99	1.91	1.56
Unemployed	-0.71	1.61	1.24

H_{3C}: There will be no significant difference in the performance gap scores on the instructional effectiveness dimension of the SSI for undergraduate students who are receiving federal grants or scholarships and those whose education is being financed by themselves, their parents, or their employer.

H_{3D}: There will be no significant difference in the performance gap scores on the recruitment and financial aid dimension of the SSI for undergraduate students who are receiving federal grants or scholarships and those whose education is being financed by themselves, their parents, or their employer.

The results of the MANOVA model indicate that there were no significant differences in the mean performance gap scores of the respondents based on method of payment for educational expenses. Significant differences only occurred when the method of payment for educational expenses variable interacted with the employment status variable as previously discussed. Therefore, H_{3A}- H_{3D} were not rejected.

H_{4A}: There will be no significant difference in the performance gap scores on the academic advising dimension of the SSI for undergraduate students based on whether they are attending the institution that was their first, second, or third choice.

H_{4B}: There will be no significant difference in the performance gap scores on the campus climate dimension of the SSI for undergraduate students based on whether they are attending the institution that was their first, second, or third choice.

H_{4C}: There will be no significant difference in the performance gap scores on the instructional effectiveness dimension of the SSI for undergraduate students based on whether they are attending the institution that was their first, second, or third choice.

H_{4D}: There will be no significant difference in the performance gap scores on the recruitment and financial aid dimension of the SSI for undergraduate students based on whether they are attending the institution that was their first, second, or third choice.

The MANOVA results indicated that there were significant differences in the mean performance gaps scores of respondents based on whether they were attending the institution that was their first, second, or third choice. The ANOVA follow-up tests indicated that a significant difference in the mean performance gap scores of the respondents only occurred on the campus climate and instructional effectiveness dimensions of the SSI based on whether they were attending the institution that was their first, second, or third choice.

Tukey's multiple comparisons test revealed a p value of $<.0001$on both the campus climate and instructional effectiveness dimensions of the SSI. These

p values were significant at both the .05 alpha and the .0125 Bonferrroni adjusted alpha. Therefore, H_{4A} and H_{4D} were not rejected, but H_{4B} and H_{4C} were rejected.

Undergraduate students who were attending the institution that was their first choice had mean performance gap scores on the campus climate and institutional effectiveness dimensions that were significantly lower than undergraduate students who were attending the institution that was their second or third choice. Students attending the institution that was their first choice had the lowest mean performance gap scores on both the campus climate and the instructional effectiveness dimensions, followed by the mean performance gap scores for students attending the institution that was their second or third respectively. The respondents' mean performance gap scores based on institutional choice for the both the campus climate and instructional effectiveness dimensions of the SSI are shown in Table 7.

Table 7: Mean Performance Gap Scores for Campus Climate and Instructional Effectiveness Based on Institutional Choice

	1st	2nd	3rd
Campus Climate	.61	1.32	1.88
Instructional Effectiveness	.64	1.39	2.05

CHAPTER 5

CONCLUSIONS

The purpose of this study was to assess the differences in expectations and satisfaction levels of undergraduate students. This was accomplished by first examining students' importance/expectation scores and satisfaction scores according to the following independent variables: major (declared or undeclared), employment status (employed or unemployed), method of payment of educational expenses (self, parents, financial aid), and institutional choice (first, second, or third). Next, the study examined the performance gap scores of four of the twelve scales of the SSI: 1) advising effectiveness, 2) campus climate, 3) instructional effectiveness, and 4) recruitment and financial aid. Finally, the relationships among undergraduate students' mean performance gap scores and each of the independent variables are discussed.

Declared Majors

Student Importance/Expectations Scores

Results of the Student Satisfaction Inventory (SSI) showed that the undergraduate students who had declared a major (merchandising/clothing and textiles/design) indicated importance (expectations) mean scores of over 6.00 of a possible 7.00 on ten of the eleven scales. These scores indicated the dimensions were "important" or "very important". The highest mean scores for importance/expectations were on the "Safety and Security" dimension. Statements in this dimension not only dealt with issues of personal safety, but

issues of parking, campus lighting, and campus personnel's response to emergencies. Because this dimension addressed basic human needs, it is logical that these issues would be very important to the students. These results were consistent with the most recent national study using the SSI (Lowe, 2000).

The lowest mean importance/expectations scores were on the "Campus Life" dimension of the SSI. Statements on this dimension dealt with issues such as living conditions in the residence halls, weekend activities, campus organizations, disciplinary procedures, food services, intercollegiate athletic programs, and intramural activities. Even though the statement, "A variety of intramural activities are offered" received a negative performance gap score on the SSI, the "Campus Life" dimension still had the lowest mean gap scores on importance/expectations on the survey. A mean performance gap score of –0.45 indicated that for declared majors, the respondents' satisfaction exceeds their expectations in terms of intramural activities. The mean importance/expectations score on this statement was 4.47, and the mean satisfaction score for respondents was 4.92, which indicated students were "neutral" regarding this statement. Therefore, the intramural activities factor was not important to respondents, but their satisfaction scores were not different from their importance/expectations levels.

Student Satisfaction Scores

Results of the SSI indicated that undergraduate students who had declared a major showed satisfaction levels between "neutral" and "somewhat satisfied"

based on mean scores of 4.48 to 5.25 of a possible 7.00 score. The highest mean satisfaction score was on the instructional effectiveness dimension and the lowest mean satisfaction score was on the safety and security dimension.

The "Instructional Effectiveness" dimension of the SSI addresses issues of faculty performance, curriculum, and classroom experiences. The lowest mean performance gap score, 0.84 was on the statement, " I am able to experience intellectual growth here", and the highest mean performance gap score, 1.45 was on the statement, "Faculty provide timely feedback about student progress in a course". Remembering that most of the faculty at the participating universities teach an average of 11 hours per semester, serve an average of 43 advisees each, and serve on an average of three departmental, college, or university committees, it is reasonable to believe that they may not have tests and assignments graded and returned to students as timely as the students hope.

The respondents who had declared a major indicated that their universities are not exceeding their expectations in any area of instructional effectiveness, however, on most of the statements in this dimension, the mean performance gap scores were fairly small. Given such a small mean performance gap score, respondents believe they are receiving a good education and are being intellectually challenged.

The lowest mean satisfaction scores occurred in the "Safety and Security" dimension of the SSI. The largest mean performance gap score, 3.73, was on the statement "The amount of student parking space on campus is adequate". Most

all colleges and universities are outgrowing their physical space and parking is a continual problem for students, faculty, staff, and visitors. These results were consistent with the results from the most recent national study using the SSI (Lowe, 2000).

Performance Gap Scores

The largest mean performance gap score for declared majors on the SSI, 2.35, was for the statement, "Living conditions in the residence halls are comfortable (adequate space, lighting, heat, air, etc.)". The mean importance score for this statement was 6.15, which indicated that this was important to students, and the mean satisfaction score for this statement was 3.80, which indicated that their expectations were not being met. Undergraduate students who have not completed four semesters of post-secondary education, and who are not married or living with permanent relatives, are required to live in campus residence halls at all four universities included in the study (University catalogs, 2000-2002).

Other aspects addressed by the "Campus Life" dimension of the SSI such as student orientation services and the protection of freedom of expression were indicated as being important or very important to students. Issues of intercollegiate athletic programs, food services, and weekend activities were rated "somewhat important" to students. Perhaps these issues are not as important to students because they do not affect the majority of the student body. If students travel to visit family on the weekends, work more hours during

weekends, and did not purchase an on-campus meal plan, these issues would not be as relevant to them.

Undeclared Majors

Student Importance/Expectations Scores

The respondents who were classified as undeclared majors indicated importance/expectations mean scores of over 6.00 of 7.00 on eight of the eleven scales. These scores indicated the dimensions were "important" or "very important". The highest mean importance/expectations scores for undeclared majors were also on the safety and security dimension of the SSI, and the lowest mean importance/expectations scores were on the campus life dimension.

The academic advising dimension of the SSI deals with issues concerning the academic advisors' approachability and availability and concern for the student, as well as, whether or not the requirements for a degree are clear and reasonable. The mean importance scores on all statements in this dimension ranged from 5.40 to 6.44 indicating that factors of academic advising were "somewhat important" or "important" to students.

The recruitment and financial aid dimension of the SSI addresses admissions personnel and services and financial aid counselors and awards. All statements in this dimension received an importance score over 6.00 indicating that these issues were "important" or "very important" to students.

Student Satisfaction Scores

Results of the SSI indicated that undergraduate students who had not declared a major showed satisfaction levels between "neutral" and "somewhat satisfied" based on mean scores of 4.45 to 5.81 of a possible 7.00 score. The highest mean satisfaction score was on the academic advising dimension and the lowest mean satisfaction score was on the recruitment and financial aid dimension. Satisfaction scores on statements relating to the recruitment and financial aid dimension ranged from 3.47 to 5.55 indicating "somewhat dissatisfied" to "somewhat satisfied". The mean satisfaction scores for the academic advising dimension were 5.31 to 6.07 indicating that the respondents were "somewhat satisfied" to "satisfied".

Performance Gap Scores

The largest mean performance gaps scores, 2.65 to 3.12, occurred on statements dealing with financial aid availability and the helpfulness of financial aid personnel. The lowest mean performance gap score, 0.67 to 0.98, occurred for statements about admissions staff and services.

There were four statements on the SSI that had negative performance gap scores for undeclared majors. "A variety of intramural activities are offered" had a performance gap scores of –1.78; "The intercollegiate athletics programs contribute to a strong sense of school spirit" had a performance gap score of –0.39; "Males and females have equal opportunities to participate in intercollegiate athletics" had a performance gap score of –0.05; and "I can easily

get involved in campus organizations" had a performance gap score of –0.89. The importance scores for each of these statements ranged from 3.85, indicating "somewhat unimportant" to "neutral" to 5.00 indicating "somewhat important". Evidently, these issues dealing with the "campus life" dimension are not terribly important to the students, but they believed that their respective universities were doing a good job meeting their expectations regarding these issues.

Two negative mean performance gap scores occurred on the statements concerning the advisors concern for the student as an individual. "My academic advisor is concerned about my success as an individual" had a mean performance gap score of –0.05; and "My academic advisor helps me set goals to work toward" had a mean performance gap score of –0.40. The largest mean performance gap score in this dimension, 1.02, occurred for the statement, "Major requirements are clear and reasonable".

Often academic advisors do not get to spend as much time with each advisee as they would like to, and believe that they can not show each advisee the attention they deserve; however, these results indicate that students who have not declared a major have expectations of advisor attention that are being exceeded. Degree or major requirements may not be clear to students as a result of them not being familiar with the university catalog, not understanding prerequisites, or changing majors or program areas. Students may not associate this lack of understanding with their academic advisor.

Summary of Student Importance/Expectations and Satisfaction

Students who had declared a major generally had higher importance scores and lower satisfaction scores than students who had not declared a major. However, these differences may not be totally related to declaring a major since the majority of students who have not declared a major are classified as freshmen or sophomores, and previous research indicates that lower classmen typically show higher levels of satisfaction. On most dimensions of the SSI, the mean scores for declared and undeclared majors were only slightly different. These results indicate that once students have declared a major and made a commitment to an academic program, their expectations increase. The results shown in Table 2 and Table 3 do not indicate that students who have declared a major have lower levels of satisfaction as much as they have higher levels of expectations, and therefore, have slightly higher performance gap scores.

The highest mean importance scores for both declared and undeclared majors occurred on the safety and security dimension of the SSI, and the lowest mean importance scores for both declared and undeclared majors occurred on the "Campus Life" dimension of the SSI. The mean scores for both declared and undeclared majors only varied slightly. The highest mean satisfaction scores for declared majors occurred on the instructional effectiveness dimension of the SSI. Declared majors had a mean satisfaction score of 5.25 on this dimension compared to 5.65 for undeclared majors. The highest mean satisfaction scores for undeclared majors occurred on the academic advising dimension of the SSI.

Undeclared majors had a mean satisfaction score of 5.81 on this dimension compared to 5.16 for declared majors. Again, only slight differences.

Declared majors had high mean satisfaction scores on the instructional effectiveness dimension of the SSI. This is understandable since students who have declared a major are more than likely taking classes directly related to their area of interest. The student respondents in this study who had declared a major were in a merchandising/clothing and textiles/design program and the courses related to this program area are small to mid-size classes at each of the four universities studied. Because of smaller classes, students may be better able to communicate effectively and get more personal attention from the faculty, which are areas addressed by the instructional effectiveness dimension and previously reported as areas of importance and satisfaction for students.

Hypotheses Tests

The major hypothesis for this study addressed the differences in the respondents' performance gap scores for the four selected scales of the SSI or the dependent variables (i.e. academic advising, campus climate, instructional effectiveness, and recruitment and financial aid) and the four independent variables (i.e. major, employment status, institutional choice, and method of payment for educational expenses).

H_0: There will be no significant differences in the performance gap scores on the academic advising, campus climate, instructional effectiveness, and recruitment and financial aid dimensions of the Student Satisfaction

Inventory between undergraduate students based on major, employment status, institutional choice, and method of payment for educational expenses.

Based on the results of the MANOVA Model shown in Table 2, the null hypothesis was rejected. There were significant differences found between groups and interactions within groups on different variables.

Major

The MANOVA results indicated that there were significant differences in the means of the respondents performance gap scores on the four selected scales of the SSI (i.e. academic advising, campus climate, instructional effectiveness, and recruitment and financial aid) for the following independent variables: major (declared or undeclared), employment status (employed or unemployed), and institutional choice (first, second, or third). However, the analysis of variance tests revealed that the variables employment status and method of payment were only significant when interacting with another variable. There were significant interactions between the major and method of payment variables, and the employment status and the method of payment variables.

The analysis of variance tests indicted that there was a significant difference between the mean performance gap scores of declared and undeclared majors on the academic advising dimension of the SSI. Students who had declared a major had higher performance gap scores than students who had not declared a major. At each of the three participating universities where students

who had not declared a major, they are advised by trained advisors at a central advising center. Students who have declared a major at each of the four participating universities are advised by a faculty member from the respective program area. The results from this study are not consistent with the results of the Belcheir (1999) study or the Lowe (2000) study.

Employment Status

While the MANOVA results indicated that employment status had a significant effect on the performance gap scores of the respondents, the ANOVA follow-up tests indicated that these effects were only significantly different as a result of the interaction of employment status and method of payment for educational expenses. This interaction was only significant on the recruitment and financial aid dimension of the SSI.

Using an alpha of .05, it was hypothesized that there would be no significant differences in the mean performance gap scores on the recruitment and financial aid dimension of the SSI between respondents who were employed and those who were not employed. The Tukey's multiple comparison test indicated that there were significant differences, but only as a result of the interaction with the method of payment variable. The employed students who were paying their educational expenses themselves had the highest mean performance gap score on the recruitment and financial aid dimension of the SSI, followed by students who were employed whose parents were paying their educational expenses and students who were employed and were receiving

financial aid, respectively. The mean performance gap scores for these three groups were different, but not significantly different. Students who are working and themselves or their parents are paying their educational expenses may have higher expectations than students receiving financial aid because they believe they are "earning" their education. Higher expectation scores combined with neutral or lower satisfaction scores lead to higher performance gap scores.

Significant differences did occur for students who were not employed based on method of payment for educational expenses. Students who were not employed and were paying their educational expenses themselves had the lowest performance gap scores on the recruitment and financial aid dimension of the SSI, followed by unemployed students receiving financial aid and unemployed students whose educational expenses were being paid by their parents, respectively. A negative performance gap score of –0.71 occurred for unemployed students who were paying their own educational expenses. This was a surprising result, and most likely occurred for non-traditional students and/or when their spouse paid students' educational expenses.

Method of Payment of Educational Expenses

The results of the MANOVA indicated that there were no significant differences in the mean performance gap scores of the respondents based on method of payment of educational expenses. Significant differences only occurred when the method of payment of educational expenses variable interacted with the employment status variable as previously discussed.

Therefore, the null hypotheses relating to the method of payment variable were not rejected. How students' educational expenses were paid was only significant based on whether the student was employed or not employed. These results were surprising because it is reasonable to believe that performance gap scores would be different based on how and by whom educational expenses were paid regardless of the employment status of the student.

Institutional Choice

The MANOVA results indicated that there were significant differences in the mean performance gap scores of respondents based on whether they were attending the institution that was their first, second, or third choice. However, the ANOVA follow-up tests indicated that significant differences only occurred on the campus climate and instructional effectiveness dimensions of the SSI. Tukey's multiple comparisons test revealed that students who were attending the institution that was their first choice had mean performance gap scores on the campus climate dimension and the instructional effectiveness dimension that were significantly lower than undergraduate students who were attending the institution that was their second or third choice.

Students attending the institution that was their first choice had the lowest mean performance gap scores on both the campus climate and the instructional effectiveness dimensions, followed by the mean performance gap scores for students attending the institution that was their second or third choice

respectively. These results were consistent with the most recent national study (Lowe, 2000).

Implications for Higher Education

With the increased competition among colleges and universities for higher enrollment, the pressure from potential employers for a better product, and legislators and the general public demanding more accountability, student satisfaction will continue to be a major issue in higher education. The results of this study indicate that students in these four universities in the Tennessee Board of Regents system have relatively high expectation levels and these expectations are rarely being exceeded.

The satisfaction levels of the students were also relatively high and the dimensions where high performance gap scores were shown were few. Low or very low performance gap scores indicated that students are satisfied or very satisfied, but this is not enough in today's higher education culture. As indicated by Kotler and Fox (1995), often a customer (student) who is "just satisfied" is vulnerable to another offer if they perceive the other offer to be better. It is important for colleges and universities to know what they are doing right and how they are meeting the needs of their students (customers). Based on these results, administrators, faculty, and support personnel can see what aspects of their institutions are satisfying and continue their service in these areas.

The analysis of variance tests indicted that there was a significant difference between the mean performance gap scores of declared and undeclared

majors on the academic advising dimension of the SSI. Students who had declared a major showed higher performance gap scores than students who had not declared a major, indicating that their expectations for advising are not being met. Students who have not declared a major are typically advised by trained advisors in a centralized advising location. Since these students have not committed to a major or program of study they generally do not have as high levels of expectations as student who have set that goal for themselves.

Based on the information from the focus groups and discussions with faculty and administrators at the four universities, students who have declared a major do not always get the time and attention that want and deserve from their faculty advisors. Adequate time allotment for academic advising is something faculty and administrators need to look at and take steps to provide. Perhaps a certain number of advisees for a faculty member equals one credit hour of class, and the faculty member could be released from an hour of their teaching load to give more time and attention to their advisees. The advisement time period could also be extended. Usually universities have a week for advising followed by a week for pre-registration.

The MANOVA results indicated that there were significant differences in the mean performance gap scores of respondents based on whether they were attending the institution that was their first, second, or third choice. However, the ANOVA follow-up tests indicated that significant differences only occurred on the campus climate and instructional effectiveness dimensions of the SSI.

The campus climate dimension assesses emotional things like "sense of belonging", and "feeling welcomed", with statements regarding campus organizations, and the helpfulness of institutional personnel.

Colleges and universities need to have an intensive orientation class for all incoming students whether they are first-time freshman, transferring from another college or university, or returning students. There should be several sections of this course offered every term so that the classes will not be large. Students will be able to get to know the instructor and each other as they form small groups for projects and discussions.

The literature indicates that the factors of instructional effectiveness that are the most important to them include the competency and availability of the instructor, mutual respect between the teacher and the students, and being able to see the value of the information in the course. The results of this study are consistent with the previous literature. Colleges and universities must continue to hire knowledgeable faculty and train them on the importance of the student-teacher relationship and how to nurture and maintain that relationship. Each instructor should strive to make course material relevant to the students and whenever possible allow students to set course goals and objectives and incorporate team-building and decision-making exercises into their curricula.

Summary

The results of this study indicate what is important to undergraduate students at four public universities in Tennessee, and how satisfied these students

(customers) are that their needs and expectations are being met. Institutions of higher learning need to focus on students as individuals, provide opportunities for students to get involved in the social, as well as, academic culture of the institution, and stress to the faculty, staff, and support personnel the value of the their relationship with students. Colleges and universities are providing a service (an education) to students (customers) and the relationship between the service provider and the customer must be nurtured and consistently evaluated. Just as students change each academic term, institutions must seek to meet the particular needs and expectations of their students, and that may often mean changing the way they do business.

Limitation of the Study

Expectations, as defined in the traditional consumer behavior literature, were not measured in this study. The Student Satisfaction Inventory (SSI) measures the importance students place on various issues concerning their educational experience and the importance score is interpreted as student expectations. The instrument was developed partly as a result of numerous focus groups with students, faculty, administrators and academic support personnel, and the statements on the scale are evidence that, on some level each of these issues are expectations of students.

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APPENDICES

Appendix A

Students Satisfaction Inventory

Noel-Levitz™
a USA Group company

STUDENT SATISFACTION INVENTORY™

4-Year College and University Version

Laurie A. Schreiner, Ph.D., and Stephanie L. Juillerat, Ph.D.

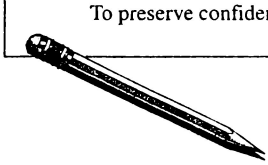
Dear Student,

Your institution is interested in systematically listening to its students. Therefore, your thoughtful and honest responses to this inventory are very important.

You are part of a sample of students carefully selected to share feedback about your college experiences thus far. Your responses will give your campus leadership insights about the aspects of college that are important to you as well as how satisfied you are with them.

To preserve confidentiality, your name is not requested.

— Thank you for your participation.



Instructions:

- Use a No. 2 pencil only. Please do not use ink or ballpoint pen.
- Erase changes completely and cleanly.
- Completely darken the oval that corresponds to your response.

Each item below describes an expectation about your experiences on this campus. On the *left*, tell us how <u>important</u> it is for your institution to meet this expectation. On the *right* tell us how <u>satisfied</u> you are that your institution has met this expectation.

Importance to me . . .			. . . My level of satisfaction
1 - not important at all 2 - not very important 3 - somewhat unimportant 4 - neutral 5 - somewhat important 6 - important 7 - very important	does not apply		not available/not used very satisfied - 7 satisfied - 6 somewhat satisfied - 5 neutral - 4 somewhat dissatisfied - 3 not very satisfied - 2 not satisfied at all - 1
1 2 3 4 5 6 7	○	1. Most students feel a sense of belonging here.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	2. The campus staff are caring and helpful.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	3. Faculty care about me as an individual.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	4. Admissions staff are knowledgeable.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	5. Financial aid counselors are helpful.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	6. My academic advisor is approachable.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	7. The campus is safe and secure for all students.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	8. The content of the courses within my major is valuable.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	9. A variety of intramural activities are offered.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	10. Administrators are approachable to students.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	11. Billing policies are reasonable.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	12. Financial aid awards are announced to students in time to be helpful in college planning.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	13. Library staff are helpful and approachable.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	14. My academic advisor is concerned about my success as an individual.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	15. The staff in the health services area are competent.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	16. The instruction in my major field is excellent.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	17. Adequate financial aid is available for most students.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	18. Library resources and services are adequate.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	19. My academic advisor helps me set goals to work toward.	1 2 3 4 5 6 7 ○
1 2 3 4 5 6 7	○	20. The business office is open during hours which are convenient for most students.	1 2 3 4 5 6 7 ○

PLEASE DO NOT MARK IN THIS AREA

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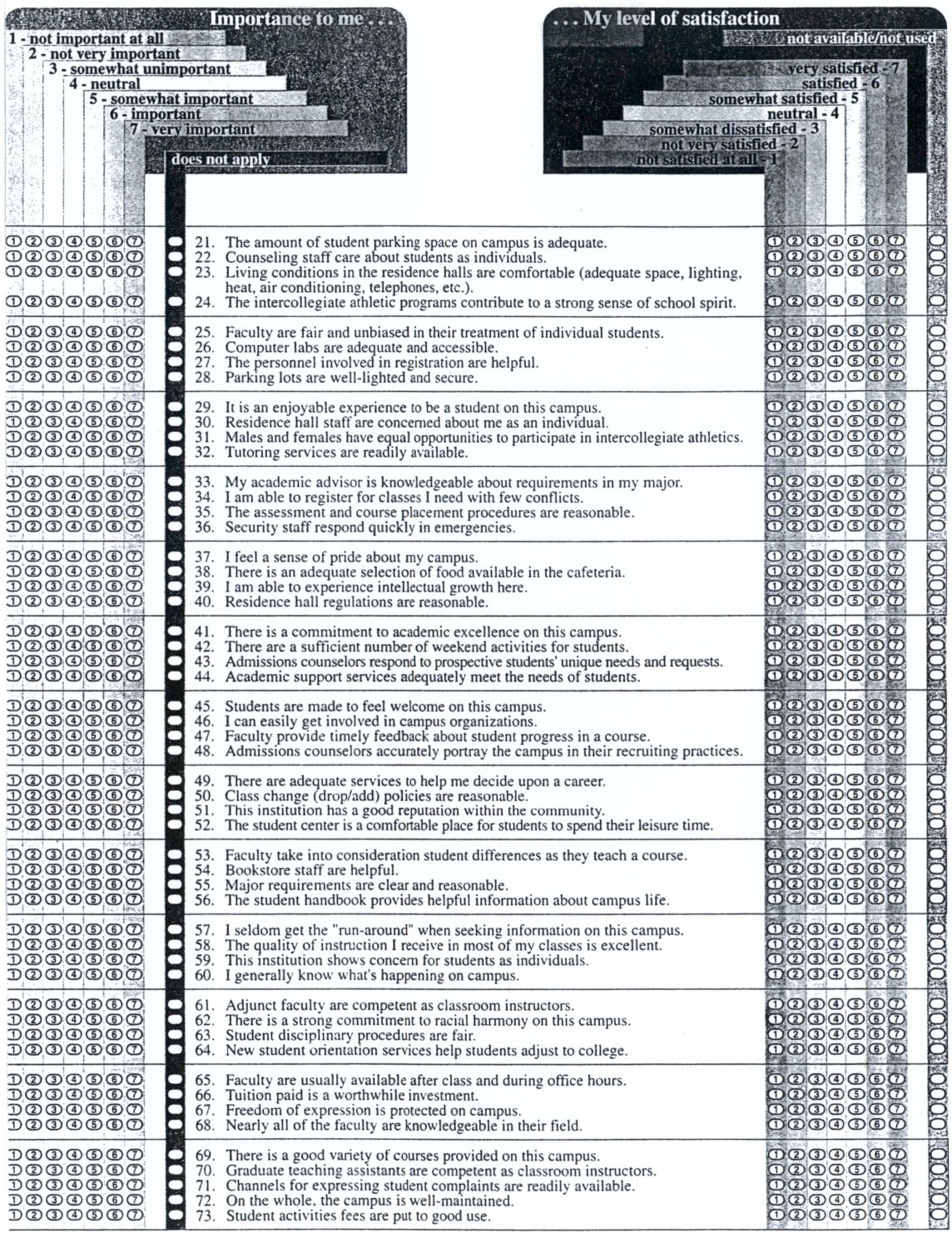
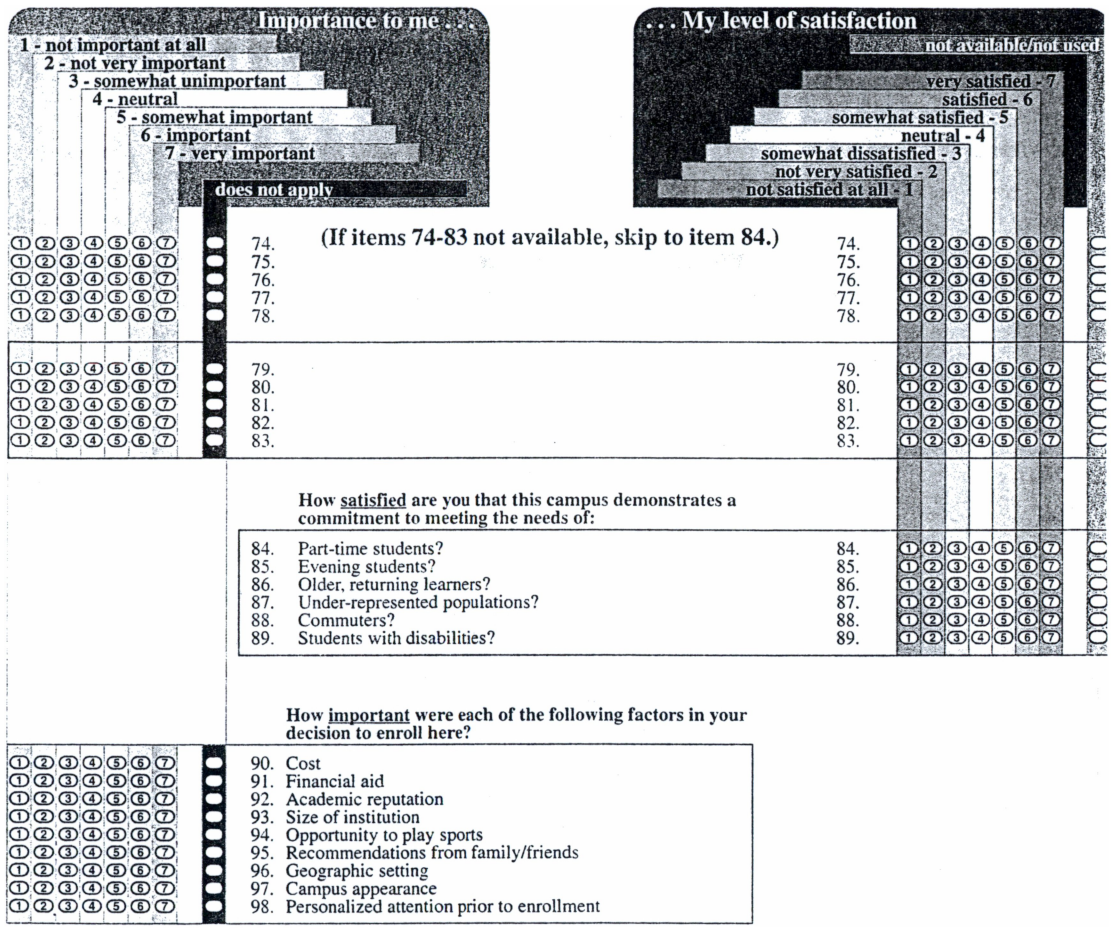

Importance to me . . .
1 - not important at all
2 - not very important
3 - somewhat unimportant
4 - neutral
5 - somewhat important
6 - important
7 - very important
does not apply
. . . My level of satisfaction
not available/not used
very satisfied - 7
satisfied - 6
somewhat satisfied - 5
neutral - 4
somewhat dissatisfied - 3
not very satisfied - 2
not satisfied at all - 1
21. The amount of student parking space on campus is adequate.
22. Counseling staff care about students as individuals.
23. Living conditions in the residence halls are comfortable (adequate space, lighting, heat, air conditioning, telephones, etc.).
24. The intercollegiate athletic programs contribute to a strong sense of school spirit.
25. Faculty are fair and unbiased in their treatment of individual students.
26. Computer labs are adequate and accessible.
27. The personnel involved in registration are helpful.
28. Parking lots are well-lighted and secure.
29. It is an enjoyable experience to be a student on this campus.
30. Residence hall staff are concerned about me as an individual.
31. Males and females have equal opportunities to participate in intercollegiate athletics.
32. Tutoring services are readily available.
33. My academic advisor is knowledgeable about requirements in my major.
34. I am able to register for classes I need with few conflicts.
35. The assessment and course placement procedures are reasonable.
36. Security staff respond quickly in emergencies.
37. I feel a sense of pride about my campus.
38. There is an adequate selection of food available in the cafeteria.
39. I am able to experience intellectual growth here.
40. Residence hall regulations are reasonable.
41. There is a commitment to academic excellence on this campus.
42. There are a sufficient number of weekend activities for students.
43. Admissions counselors respond to prospective students' unique needs and requests.
44. Academic support services adequately meet the needs of students.
45. Students are made to feel welcome on this campus.
46. I can easily get involved in campus organizations.
47. Faculty provide timely feedback about student progress in a course.
48. Admissions counselors accurately portray the campus in their recruiting practices.
49. There are adequate services to help me decide upon a career.
50. Class change (drop/add) policies are reasonable.
51. This institution has a good reputation within the community.
52. The student center is a comfortable place for students to spend their leisure time.
53. Faculty take into consideration student differences as they teach a course.
54. Bookstore staff are helpful.
55. Major requirements are clear and reasonable.
56. The student handbook provides helpful information about campus life.
57. I seldom get the "run-around" when seeking information on this campus.
58. The quality of instruction I receive in most of my classes is excellent.
59. This institution shows concern for students as individuals.
60. I generally know what's happening on campus.
61. Adjunct faculty are competent as classroom instructors.
62. There is a strong commitment to racial harmony on this campus.
63. Student disciplinary procedures are fair.
64. New student orientation services help students adjust to college.
65. Faculty are usually available after class and during office hours.
66. Tuition paid is a worthwhile investment.
67. Freedom of expression is protected on campus.
68. Nearly all of the faculty are knowledgeable in their field.
69. There is a good variety of courses provided on this campus.
70. Graduate teaching assistants are competent as classroom instructors.
71. Channels for expressing student complaints are readily available.
72. On the whole, the campus is well-maintained.
73. Student activities fees are put to good use.

Your institution may choose to provide you with additional questions on a separate sheet. The section below numbered 74 - 83 is provided as a response area for those additional questions. Continue on to item 84 when you have completed this section.



Choose the one response that best applies to you and darken the corresponding oval for each of the questions below.

99. So far, how has your college experience met your expectations?
① Much worse than I expected
② Quite a bit worse than I expected
③ Worse than I expected
④ About what I expected
⑤ Better than I expected
⑥ Quite a bit better than I expected
⑦ Much better than I expected

100. Rate your overall satisfaction with your experience here thus far.
① Not satisfied at all
② Not very satisfied
③ Somewhat dissatisfied
④ Neutral
⑤ Somewhat satisfied
⑥ Satisfied
⑦ Very satisfied

101. All in all, if you had it to do over again, would you enroll here?
① Definitely not
② Probably not
③ Maybe not
④ I don't know
⑤ Maybe yes
⑥ Probably yes
⑦ Definitely yes

CONTINUE TO THE NEXT PAGE

Choose the one response that best describes you and darken the corresponding oval for each of the items below.

102. Gender:
① Female
② Male

103. Age:
① 18 and under
② 19 to 24
③ 25 to 34
④ 35 to 44
⑤ 45 and over

104. Ethnicity/Race:
① African-American
② American Indian or Alaskan Native
③ Asian or Pacific Islander
④ Caucasian/White
⑤ Hispanic
⑥ Other
⑦ Prefer not to respond

105. Current Enrollment Status:
① Day
② Evening
③ Weekend

106. Current Class Load:
① Full-time
② Part-time

107. Class Level:
① Freshman
② Sophomore
③ Junior
④ Senior
⑤ Special Student
⑥ Graduate/Professional
⑦ Other

108. Current GPA:
① No credits earned
② 1.99 or below
③ 2.0 - 2.49
④ 2.5 - 2.99
⑤ 3.0 - 3.49
⑥ 3.5 or above

109. Educational Goal:
① Associate degree
② Bachelor's degree
③ Master's degree
④ Doctorate or professional degree
⑤ Certification (initial or renewal)
⑥ Self-improvement/pleasure
⑦ Job-related training
⑧ Other

110. Employment:
① Full-time off campus
② Part-time off campus
③ Full-time on campus
④ Part-time on campus
⑤ Not employed

111. Current Residence:
① Residence hall
② Fraternity / Sorority
③ Own house
④ Rent room or apartment off campus
⑤ Parent's home
⑥ Other

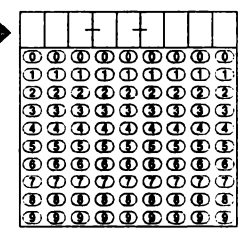
112. Residence Classification:
① In-state
② Out-of-state
③ International (not U.S. citizen)

113. Disabilities:
Physical disability or a diagnosed learning disability?
① Yes
② No

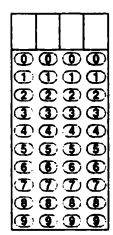
114. When I entered this institution, it was my:
① 1st choice
② 2nd choice
③ 3rd choice or lower

Your Social Security Number is requested for research purposes and **will not** appear on any report.

Social Security Number:
Write your Social Security number in the nine spaces of the box provided. Completely darken the corresponding oval.



115. Major:
Fill in major code from list provided by your institution.



116. Item requested by your institution:
①
②
③
④
⑤
⑥

Thank you for taking the time to complete this inventory.
Please do not fold.

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Appendix B

Informed Consent Statement

Expectations and Satisfaction Among Undergraduate Students: A Consumer Behavior Approach

You are invited to voluntarily participate in a research project to determine the correlation between the expectations and level of satisfaction with the university experience among undergraduate students. Your completion of the survey is your consent to participate. This study is part of a doctoral dissertation at the University of Tennessee, Knoxville. By completing the Student Satisfaction Inventory you will help determine the level of importance of student expectations and the differences, if any, between students' expectations and their level of satisfaction with the university experience.

The survey is anonymous. The data will help university administrators, faculty, and support personnel to serve you better. There are no risks involved in completing the survey and the information you provide will be anonymous and will be kept confidential. Completed surveys will be stored in a locked filing cabinet in a locked office and will be destroyed after two years. No reference will be made in oral or written reports which could link individual participants to the study. **Do not fill in your social security number on the last page of the survey.**

You participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty, and without loss of benefits to which you are otherwise entitled. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed.

Thank you for participating in this research project. If you have questions at any time about the study or the procedures, you may ask the researcher administering the survey. If you have questions about your rights as a participant, contact the University of Tennessee Office of Research Compliance Section at 865-974-3466.

Appendix C

Additional Survey Questions

Please respond to the following statements by darkening the corresponding circle on your survey.

74. I would prefer to have more elective hours in my curriculum.

75. I would prefer to take more courses specifically relating to my major or concentration area.

76. This campus demonstrates a commitment to meeting the needs of transfer students.

77. Most of my credits from another institution transferred to my current institution.

78. Changing majors is not a difficult process.

79. I had adequate knowledge of all major program areas when I selected my major.

116. How is MOST of your college education being financed?
1-self
2-parents
3-employer
4-loan
5-scholarship
6-grant

VITA

Leigh Southward, a native of Tishomingo, Mississippi, was active in 4-H, FHA/HERO, and the marching band. She attended Northeast Mississippi Community College (NEMCC), received a B.S. degree in Clothing, Textiles, and Merchandising from Mississippi University for Women (MUW), and M.S. degree and a Ph.D.in Human Ecology from the University of Tennessee, Knoxville (UTK). After graduating in 1987, Leigh completed an internship with Parisian in Florence, Alabama, before joining the buying staff at Sparko Stores, Inc. in Belmont, Mississippi. She started graduate school at UTK in January 1989, and graduated in August 1990. She obtained the position of Manager of Human Resources and Training at Proffitt's Department Store in Knoxville and remained in that position for three years. Leigh became and extension home economist with Virginia Cooperative Extension and worked as a 4-H agent with the University of Tennessee Extension Service before accepting a full-time teaching position in marketing and hospitality education at Volunteer State Community College. She joined the faculty at Tennessee Tech's School of Human Ecology in August 1998.